

Urban District of Heanor.

ANNUAL REPORT

OF THE

Medical Officer of Health

AND

Sanitary Inspector

FOR

THE YEAR 1943.

P. H. J. TURTQON, M.D., Ch.B. (Edin.), D.P.H. (Vict.).

Medical Officer of Health.

A. A. WILSON, M.C., M.R.S.I.,

Sanitary Inspector.

HEANOR.

"Observer" Office, Market Street.

Heanor Urban District Council.

1943.

Chairman: COUNCILLOR H. B. HUNT.

Vice-Chairman: COUNCILLOR J. W. LILLEY.

PUBLIC HEALTH COMMITTEE.

Chairman: COUNCILLOR J. W. LILLEY.

COUN. C. W. BAKER.

" F. E. BROWN.

" T. A. BLOWERS.

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" T. A. SAXTON.

" L. SHIPLEY.

" J. T. SMITH.

" J. W. WHITE.

" C. B. WOOD.

" G. WRIGHT.

PUBLIC HEALTH STAFF.

Medical Officer of Health:

(a) (b) P. H. J. TURTON, M.D., Ch.B. (Edin.), D.P.H. (Vict.).

Sanitary Inspector:

(a) A. A. WILSON, M.C., M.R.S.I.

Clerks: MISS I. E. ANNABLE & MRS. D. LLOYD.

Shops Inspector: C. G. BASSFORD.

Nurses under the Derbyshire C.C. Maternity and Child Welfare
Scheme and Tuberculosis Regulations:

MISS E. S. STEVENS. MISS E. WEBB.

MISS C. M. WHEATLEY.

(a) Salaries contributed to under Exchequer Grants.

(b) Part-time Appointment.

"I saw a man standing in a certain place with his face from his house, a book in his hand, and a great burden upon his back. I looked and saw him open the book and read therein, and as he read he wept and trembled, and not being able longer to contain, he brake out with a lamentable cry, saying 'What shall I do?'"

—Christian in "Pilgrim's Progress."

"He had some strange message to deliver us, ay, some mad message."

—Shakespeare.

"The plain evidence of facts is superior to all declaration."

—Letters of Junius.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1943.

To the Chairman and Members of the
Heanor Urban District Council.
Mr. Chairman and Gentlemen,

The report I have the honour to present to you on the health and sanitary conditions of the Heanor Urban District for 1943 is somewhat late in appearing, through causes which are outside my control. The year was responsible for a great deal of sickness and disability of a kind which does not come much within official notice, except in the event of death.

Throughout the summer months of 1943 influenza began to arise, at first sporadically, and then jumped to epidemic proportions on or about November 8th. For a period of 4-5 weeks the sickness rate was heavy, but towards the middle of December there was a sudden decline. After a respite of 2-3 weeks the boxing match was again in full swing with increased violence; the sickness rate for the following three months was exceedingly heavy, and even by the end of May influenza was still in evidence. Epidemics of this disease appear to have changed a good deal of late years, for where it used to be a six weeks infliction, it is now more likely to persist for six months or even longer.

In my experience, the epidemic was associated with an extraordinary number of cases of pleurisy and pleuro-pneumonia secondary to the initial infection many of which were of a fulminating kind. Fortunately, they responded well to heavy dosage with sulphapyridine. It is experiences such as this which make one somewhat annoyed when one reads of inspired government spokesmen pronouncing that the health of the country was never better.

VITAL STATISTICS IMPROVED.

The vital statistics of the country as measured by mortality rates are better than in peace-time; in 1942, the standardised death rate of the country was the lowest ever recorded; the maternal and infant death rates were also at their lowest, and new low records were established in the mortality from diphtheria, pneumonia, scarlet fever, rheumatic fever, chronic endocarditis and gall bladder disease. In 1943, the standardised death rate was only very slightly above the very low rate for 1942; new low records were established for infant mortality, which fell to 49 per 1,000 live births, and stillbirths and neonatal mortality continued to decline, the former without interruption since 1935. The reproduction rates show some improvement. In 1933, when it was 75 per cent., it rose to 81 per cent.

in 1938, fell back to 76 - 77 per cent. in 1940 and 1941, rose to 85 per cent. in 1942, and 90 per cent. in 1943. But as the marriage rate for 1943 has dropped considerably, it would be surprising if the reproduction rate continued to rise above the 90 per cent. of 1943.

ON OTHER FRONTS.

But those who work on the Industrial Front have another story to tell, with huge increases in short-term illness, absenteeism from work on various pretexts which have to be certified, masses of common colds, bronchitis, tonsillitis, pharyngitis, gastritis, enteritis, a plague of haemorrhoids, a marked increase in neurosis, lassitude and fatigue, dizziness, tachycardia, headaches, insomnia, depression and vertigo, not forgetting our old friend the bad back: all intermingled with a motley assortment of misfits, scroungers and out and out malingerers; and last, but not least in numbers, the seekers after priorities for milk, eggs, whisky, glucose, proprietary dried milks, soap, coal, corsets, exemption from fire watching and Home Guard duties, and medical certificates for other employment on dubious grounds, and some seeking a week or two off work in order to live on Income Tax rebates plus sick pay—all travel to the doctor's door. But even after allowing for all those whose claims are open to considerable dubiety, there is still a large residuum of short-term illness which makes tremendous inroads upon industrial production.

The health of any community cannot be gauged by mortality statistics alone: there is a world of difference between mortality and morbidity figures. If you take an institution containing 1,000 lunatics with a mortality rate of nil for any one year, on that basis you might say, if you knew nothing about their real state, that they were a remarkably healthy lot. Such a conclusion would be absurd. Yet people read mortality statistics and conclude from them being low, that things are going well, failing to realise that death is merely the termination of a pre-existing state of ill-health of varying cause and duration; they would discount the fact that some, at least, of the inmates would be where they were because of years of malnutrition producing unrecognised pellagra whose terminal state is insanity and death. But there is an entry to life as well as an exit, and in between a period of travel and all too often of travail. The women of the country are failing to reproduce themselves, for any reproduction rate of less than 1 will inevitably result in a decline in population in the coming generation. The reproduction rate of 0.9 for 1943 is not likely to be maintained on account of the decline in the marriage rate. The population is ageing; to-day, pensioners number some 13 per 100 of the population, and they are estimated to rise to 31 per 100 by 1961.

PROGRESS NOT SYNONYMOUS WITH SPEED.

In thinking of what is called progress, "Man has a way of becoming enslaved to his own instruments, and of getting so occupied with the means of life that he forgets the end." (Lindsay). We are

told that after the war it will be possible to travel from this country to Hong Kong in 24 hours flying time, and are assured with equal confidence that we shall be able to spend the week-end by flying to Melbourne in 2½ days. I think it was John Ruskin who said that a railway was built between Millers Dale and Buxton so that fools could travel either way more quickly than before. Mere increase in the speed of travel is not evidence of progress; in the future it may mean that diseases such as Asiatic Smallpox will be brought measurably nearer to these islands, where the population is largely unprotected by vaccination. The launching of missiles which travel faster than sound may yet change people's notions of speed being evidence of the quality: if progress is indicated, it is the Rake's Progress 20th century edition.

HEALTH AND PLANNING.

There is much talk about health and much planning; a great deal of what is spilled on these subjects consists of 'half-truths, lies, ambiguities, slogans, catchwords, showmanship, bathos, hocus and buncombe.' The high pressure salesmen of the New Order inflict upon a bewildered and preoccupied public a veritable babel of propaganda: the customer is singularly silent, even if the minority is petulantly vocal. Many people who fuss about health are hypochondriacs; others belong to a breed of paranoics known as eccentrics or mat-toids—people with wild, altruistic impersonal theories, full of absurd projects and utopian ideas; the "back to the land" brigade, vegetarians and some teetotalers who are anxious to finger other men's souls; indeed, some of the ardent reformers of other people's lives belong to this fraternity, though some are crafty opportunists who assume a mantle of impersonal altruism to disguise their real intentions. These are the dangerous men. "Those who dream by night in the dusty recesses of their minds wake in the day to find that all was vanity; but the dreamers of the day are dangerous men, for they may act their dream with open eyes, and make it possible." We are assured that the doctor of the future is to become preventive minded: that he is to be a dispenser, not of physic but of a utopian dream, called in the modern jargon "positive health," and that he is to abandon the rich and varied experience he gains from his contacts with suffering humanity for the cold, chilling, impersonal and utilitarian efficiency to be found only in Health Centres and institutions. A madman once asked a doctor, "Are you Allopathy?" On being assured not exactly, he said, "Then you are Homeopathy, I suppose?" To this the doctor replied he was not that. "Then possibly Electropathy or Hydropathy?" cried the madman. On being assured by the doctor that he was none of those and that medicine was not bound by any system except what was for the real welfare of patients, the expression of the poor lunatic cleared as he exclaimed, "Ah, the thing for the patient is sym-pathy, that is the Pathy for him."

The general practice of medicine is dismissed by the reformers as a mess of pottage, and on the subject of aims the White Paper

proclaims that "the service will be to provide every person, or better still, every family, with a personal or family practitioner who will be able to become familiar with the circumstances of those in his care—in the home and at work. . . . The doctor must try, in short, to become the general adviser in all matters concerned with the health (no less than with disease) on which a doctor is so well qualified to advise." That statement, gentlemen, is mere showmanship and bathos: it ignores the well-known fact that general practice is based, and has been based for generations, on family life, and that practitioners know more about the health, habits, diseases, working and housing conditions of the families whom they attend than any full-time officer, or the denizens of Tavistock Square, or even Printing House Square.

Advice is generally of no use at all unless you have executive authority for seeing it carried out, or the people to whom it is given have full confidence in the adviser. Advisory committees without executive power are the most useless things in the world. The individual doctor is singularly helpless against organised authority, whether it be in the guise of organised commerce or a State Department. "Only associations which exist for their own purposes and are concerned for the public welfare (such as churches can be and sometimes are) can do what is wanted." Any advice the individual doctor can give his patient, whether he is working as a single unit or as a member of a group, will be quite ineffective against organised commerce, whether it be under private or State ownership; he is entirely helpless in influencing managements in their treatment of employees—as helpless as the shareholders are, at that sham democratic institution the annual general meeting of stockholders, in influencing the policy of the directors whom they elect to govern their affairs. You have only to prescribe light work for a coal miner, or try and support a claim backed by other opinion for compensation for silicosis or pneumokoniosis, to discover the truth of that; or refer a case of inoperable carcinoma for treatment by deep X-ray therapy to find out, maybe, that the directive powers who control the radiologist have decreed that the particular type of case you have referred is not to be considered as suitable for treatment. A French logician once wrote—I give a free translation—"Utter any nonsense you like and you will find plenty to applaud. Whoever sets himself out to deceive the world can be sure of finding many who are quite content with being deceived, and the bigger the lie the more willingly and widely will it be believed."

ENVIRONMENTAL FACTORS OVERSTRESSED.

We lay rather too much stress upon environmental factors as causes of ill health and tend to neglect the personal factor in disease. The experiences of the early pioneers in Public Health especially of 100 years ago accounts for this. We are still feeling the effects of the doctrines espoused by Jeremy Bentham, on whose logic was founded Victorian utilitarianism. "It is difficult to believe," said Dr.

J. D. Chambers, "that only three generations ago the town which is now popularly awarded the proud title of Queen of the Midlands could have earned the reputation of the worst town in the British Empire in the chances of life it offered to large numbers of its citizens." Overcrowding such as then existed so as to beggar description produced dire results. Even though Leeds up to 1934 had 30,000 back to backs, we have travelled far in removing such foul conditions as existed in Charles Dickens' time. But we are apt to attribute too much importance to a bathroom or a water closet as essential to health, however desirable they may be. The modern craze is for refrigerators, with gas and electricity in every cottage; a wholesome drinking water supply is much more essential than these. Parks and public urinals do not promote personal health, even if they give personal pleasure and satisfaction.

If there is one environmental factor which requires serious attention it is atmospheric pollution. Apart from the unsightliness, there is nothing so objectionable as a colliery spoilbank or tip, on fire for months, emitting noxious fumes of sulphur dioxide and hydrogen sulphide. One very large spoilbank in the vicinity caused very great inconvenience during most of 1943. The tip shown in Fig. 1 is approximately 135 feet high and obliterates the view of the countryside which this street enjoyed prior to 1938. It represents about six years of working, and there are two others associated with the same colliery which are not shown on the photograph. This hill is at the present time on fire and is being constantly sprayed. It passes my comprehension how it is that some means cannot be devised for dumping this waste underground where it came from, thus saving not only spoilation of the countryside and preventing the ruining of its amenities for all time, but at the same time mitigating the very serious subsidence which occurs at the present time and which does untold damage not only to private property but to gas, water, electricity services, and drains, sewers and roads in this locality. I am told that in Germany it is the practice to return the waste underground. Not having ever visited the German coalfield, I am unable to speak of this from personal knowledge, but I have been told it could be done at a cost of about 1/6 per ton on the price of coal.

We see how the personal factor operates when we read such publications as "Our Towns: A Close Up," which administered a shock to the social conscience. The recently published booklet "Our Scottish Towns: Evacuation and the Social Future" has added its quota. A perusal of these reports makes one wonder what the Local Authority services—the School Medical Service and the Education Authorities—of which we hear so much, have been doing all these years. The big towns spewed out their feckless and filthy humanity over the countryside to the dismay of the kindly country people. In one village, which received its quota from a slum school, 50 per cent. had dirty heads, 30 per cent. impetigo, and 20 per cent. were incontinent in their habits. The drastic action taken by officials and house-

wives caused a fall of four feet in the level of the local reservoir and a local famine in disinfectants. The attitude of some is reflected in the remark of the Scottish child who, after he had had a good dinner, was offered a plain homely tea—"We're no takin' that. You're paid by Government. We're for ham and eggs." A youthful exponent of the doctrine—"The State will provide." Perhaps the most striking feature of all the sorry business is that the herd instinct is very strong, and it is reflected in the strong family unity which caused them to crowd together in one room and fear of separation in an institution. And that is a characteristic which no Government is going to change.

McCarrison has pointed out that in the State of Hunza in the northernmost part of India, where the climate is bitter in winter, the housing and conservancy arrangements are of the most primitive. In that region the people can keep little livestock other than goats and live in addition to a mixed diet of grains such as wheat, barley and maize, on abundant crops of apricots, which they dry in the sun and use very largely. The natives possess a magnificent physique and attain an extraordinary long span of life. They suffer from little illness, and amongst them appendicitis is unknown. Hunza is not exactly a surgeon's paradise. It will be seen, therefore, that primitive conditions of life are compatible with long and healthy life. Much of our ill health is due to bad feeding and personal habits, of which excessive cigarette smoking is one.

PREVALENCE OF PEPTIC ULCER.

In southern India, peptic ulcer is 58 times more common than in the north; animals fed on well-balanced diets used by the Sikhs do not develop peptic ulcer, whilst those fed on the poor and defective diets used by the Madrassi and the people of Travancore developed peptic ulcer in 11 and 29 per cent. respectively. It has been stated officially that 17 per cent. of the discharges from the Army and R.A.F. and 13.8 per cent. from the Royal Navy were on account of digestive disorders. The number of men working as Grade 1 coal miners (coal face men) who are lost to the industry owing to peptic ulcer is very heavy. Even after being cured by partial gastrectomy they do not return to it. It is not peculiar to coal miners any more than coronary thrombosis is peculiar to doctors; but peptic ulcer has now become a social curse. There is clear evidence that bad dietetics plays an important part in the genesis of peptic ulcer, though it is not the sole cause. Irregular habits, the anxiety and stress of life, and very possibly the huge increase in cigarette smoking which has developed during the last 20-30 years play an important part in its development.

The death rate from peptic ulcer has more than doubled since 1912, especially in those males over 40 years of age. In 1912, the rate for males over 40 was 197 per million; in 1937 it was 423. (See Table 1.).



FIG. 1.—View of Colliery Tip at end of Milward Road, Loscoe.



FIG 2.—Colliery Tip on Fire. Distant View.

“CAUSE —



FIG 3.—Shoring of Building due to Ground Subsidence.

— AND EFFECT.”

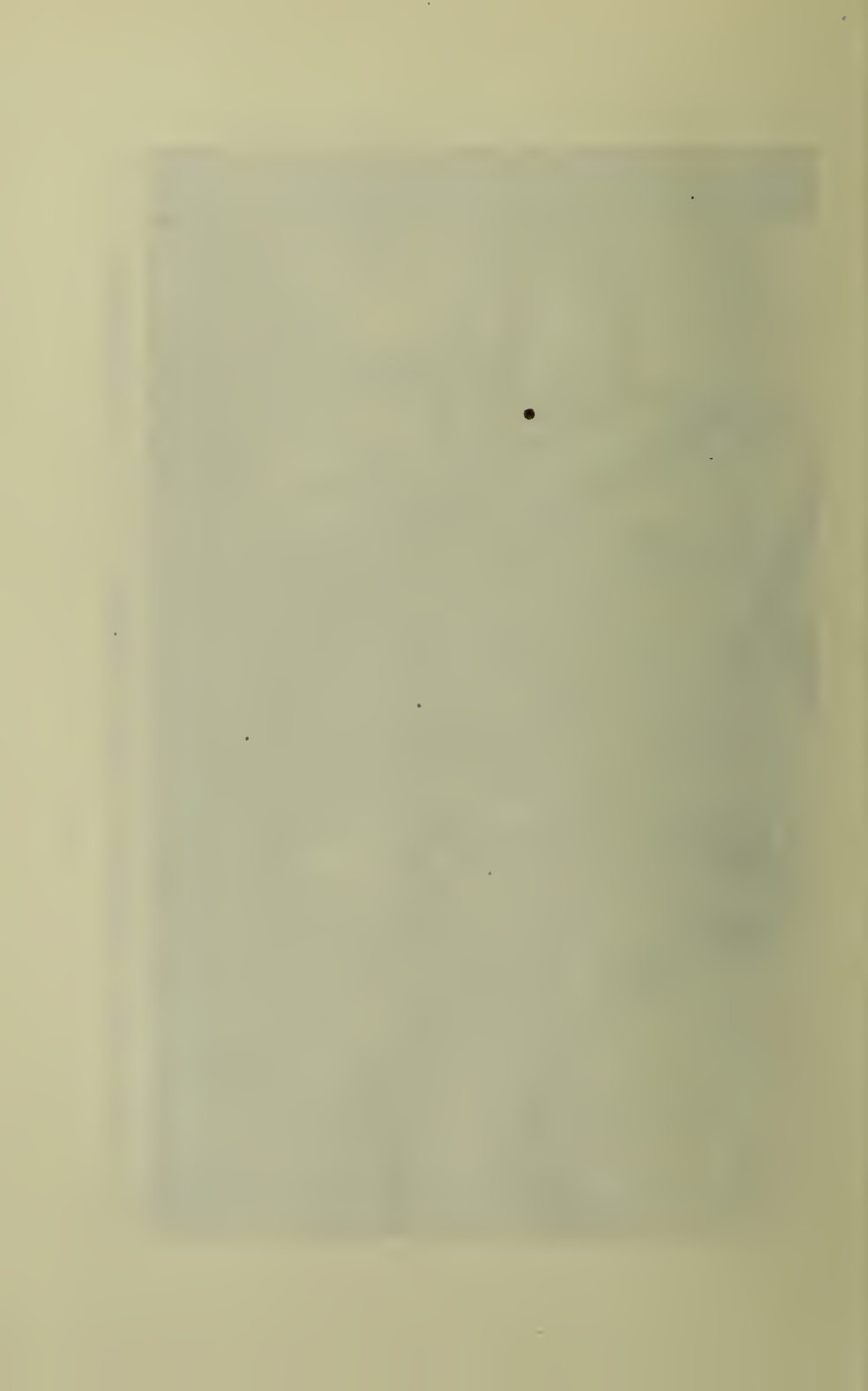


TABLE 1.

PEPTIC ULCER. CRUDE DEATH RATES PER MILLION LIVING.

From the Registrar-General's Returns.

		Popula- tion over 20 yrs.	MALES			FEMALES		
		Over 20 yrs.	20-39 yrs.	Over 40 yrs.	Over 20 yrs.	20-39 yrs.	Over 40 yrs.	
England:								
1912	...	107	129	70	197	87	67	110
1921	...	100	143	70	210	64	32	95
1931	...	155	252	83	407	70	17	115
1937	...	159	260	74	423	69	10	113
London:								
1921	...	117	177	84	257	65	24	108
1930	...	211	354	130	558	92	37	155
1937	...	208	353	84	606	87	10	150
Rural								
Districts:								
1921	...	92	115	46	173	71	34	103
1930	...	133	207	81	308	61	15	96
1937	...	137	213	51	336	64	18	97
Scotland:								
1921	...	134	185	85	303	88	38	146
1931	...	181	287	116	454	88	23	147
1937	...	209	349	122	559	86	5	155

DEFICIENT HOSPITAL DIETS.

One does not, in these days, expect to find hospital patients and staffs being fed on deficient diets; there can be no excuse on the score of ignorance. But a recent memorandum published by the King Edward's Hospital Fund for London has revealed that in three representative hospitals of 150 - 250 beds serious deficiencies existed in both patients' and nurses' diets. At hospital X the diet was deficient in protein for men and women and in vitamins A and C; at hospital Z in protein for men and women, iron, calcium and vitamin A; hospital Y provided sufficient food, but hospitals X and Z were both deficient by several hundred calories. "The Lancet," in an editorial, commented: "The results obtained in these three hospitals raises an uneasy suspicion that the same state of affairs exists in many others. . . . The memo. suggests that in the past finance has pressed far more hardly and unfairly on the catering department than on other services of the hospital, such as the dispensary. . . . Bad cooking, monotonous menus or inefficient service may each spoil the value of a meal to a patient. . . . In any case expense does not necessarily mean tastiness; many a wholesome diet built up on a scaffolding of calories and international units leaves an unpleasant taste in the memory which can only be effaced by a cheap

and dubious dinner in Soho." In only 12% of the hospitals covered by this fund have dietitians been appointed; all too often they are looked upon as persons concerned only with those requiring special diets and they are not consulted about the general feeding of patients or hospital staffs. The hospital kitchen is as important as the dispensary. If this is true of remedial medicine, it is equally true of preventive medicine.

FOOD EDUCATION.

"Hang the rogue, he lives on mouldy stewed prunes and dried cakes!"

Lord Horder has complained rightly that the overweighing of food education by appeal to science has produced a popular antipathy: that people feel that so pleasant a thing as eating and drinking was never intended to be the subject of a chemical equation. Science only enables us to understand why our ancestors were healthy who ate to enjoy themselves. Dr. Samuel Johnson said, "A man seldom thinks with more earnestness of anything than he does of his dinner! and if he cannot get that well dressed he should be suspected of inaccuracy in other things." And on looking at the bill of fare at a Johnson Celebration Supper one can well believe him, for it consisted of beef steak puddings with kidneys, oysters and mushrooms; leg of mutton with red currant jelly; apple pie with cream mounted in the old style; toasted cheese; ale and punch; churchwarden pipes. If our ancestors had no science, they had art: even if they did suffer from gout they did not suffer from peptic ulcer and insomnia and go to bed on soda water and dry biscuits. "When people," comments the *Lancet*, "see a man making a meal off scraped carrots, raw cabbage leaves and nuts and apparently enjoying it, they are not impressed—they remember Nebuchadnezzar's malady."

Mr. Le Gros has pointed out that the primary error of our food educators is to look on food habits as a health problem. To the public food is merely food: it is not a medicine. The task of influencing food habits in a desired direction is not the task of training in personal hygiene. Only in a minor degree, as for example, when the appeal is made to the mother of an unborn child, should the health argument be judiciously applied.

We are inclined to dismiss our ancestors as of little account, but in many respects they were wiser in their generation than we are in ours. Those who have read Defoe's "Journal of the Plague," written some 60 years after the event it is true, will recall that even in his day the importance of rats and mice in the spread of plague was well recognised. The fact that rats were disseminators of disease is no modern discovery. So it is with social reform. On November 12, 1796, William Pitt laid before the House a Bill in which it was suggested that a father unable to support his children should receive a shilling a week for each child until it became self-supporting and that poor and industrious persons whose wages fell below a certain

level should have a legal claim on the rates for any deficiency. It empowered parish authorities for the purchase of a cow to any industrious man unable to support his family by his own unaided efforts. It established a Parochial Fund to be raised by weekly subscriptions and rates, for contributory old age pensions. It created Schools of Industry for training children in some craft or trade until they grew up. To feed them, the uncultivated waste in every parish was to be enclosed by the Overseers. To meet the needs of agriculture boys of over 14 and girls of over 12 years could be hired out at harvest time for a period of not more than six consecutive weeks. Pitt was far in advance of his time; the Bill was thrown out. The only use the magistrates of those times had for pauper children was to sell them to the north country factories.

At a debate held at Putney, on October 25, 1647, between the representatives of the army on the one hand and Cromwell and Ireton on the other, a Colonel Rainboro summed up the case for the army in these words which I quote from Dr. Lindsay's lectures on *The Essentials of Democracy*: 'Really,' says Colonel Rainboro, 'I think the poorest he that is in England hath a life to live as the richest he.' That seems to me the authentic note of democracy. The poorest has his own life TO LIVE, not to be managed or drilled or used by other people. His life is his and he has to live it. None can divest him of that responsibility. However different men may be in wealth or ability or learning, whether clever or stupid, good or bad, living their life is their concern and their responsibility. That is for those Puritans as for all true democrats the real meaning of human equality. Responsibility for one's own life is something possessed by or enjoined on us all. Our equality in that responsibility is of such preponderating importance that beside it all our other differences, manifest and undeniable as they may be, are neither here nor there. That is not a scientific nor a common-sense doctrine. It is a religious and moral principle. It is the translation into non-theological language of the spiritual priesthood of all believers. Men who could say things like that have gone deep into the heart of things."

STATISTICS AND SOCIAL CONDITIONS.

Area of District (in acres)	4,636
Number of Houses	6,410
Rateable Value	£105,721
Product of One Penny Rate	£396/6/3
Estimated Population (mid-year)	21,790
Birth Rate (per 1,000 population)	19.91
Death Rate (per 1,000 population)	11.28
Infant Mortality Rate (per 1,000 live births)	76.0
Still Birth Rate (per 1,000 population)	0.91
Still Birth Rate (per 1,000 Births)	44.0
Maternal Mortality Rate (per 1,000 total births, live and still)	4.40

TABLE 2.

BIRTH AND DEATH RATES FOR HEANOR — 1890 - 1943.

Year.	No. of Births.	Birth Rate.	No. of Deaths.	Death Rate.
1890	377	38.8	161	16.6
1	432	44.2	171	17.5
2	394	38.5	232	22.6
3	462	44.2	149	14.2
4	450	42.6	146	13.8
5	443	41.0	157	14.5
6	460	41.6	235	21.2
7	449	39.9	194	17.2
8	424	36.8	184	16.0
9	440	37.4	181	15.4
1900	446	37.3	225	18.8
1	459	36.7	192	15.3
2	453	35.4	166	12.9
3	491	37.5	181	13.8
4	523	39.0	208	15.5
5	473	34.5	181	13.2

HEANOR AND CODNOR.

1906	592	32.4	219	11.9
7	598	32.1	221	11.8
8	644	33.8	237	12.4
9	650	33.4	223	11.4
1910	591	29.8	245	12.3
1	554	27.8	214	10.7
2	612	30.0	207	10.3
3	536	25.98	257	12.45
4	583	27.81	251	11.97
5	556	26.58	235	11.23
6	571	25.75	229	11.24
7	487	21.69	317	16.25
8	474	21.69	317	16.25
9	457	21.01	264	12.64
1920	585	26.94	213	9.91
1	538	24.60	220	10.06
2	475	21.56	236	10.71
3	442	19.91	220	9.91
4	448	20.15	196	8.81
5	447	19.95	242	10.8
6	411	18.96	246	11.35
7	361	16.59	244	11.21
8	394	17.3	208	9.13
9	374	16.23	235	10.2
1930	418	18.13	222	9.63
1	389	17.2	238	10.5

Year.	No. of Births.	Birth Rate.	No. of Deaths.	Death Rate.
2	390	17.3	230	10.2
3	344	15.2	225	10.2
4	336	14.89	216	9.5
5	351	15.5	222	9.8
6	387	17.15	209	9.25
7	369	16.3	260	11.5
8	316	15.9	230	10.1
9	370	16.2	255	11.2
1940	372	16.7	265	11.8
1	392	16.8	216	9.5
2	393	17.8	227	10.2
1943	434	19.91	246	11.28

TABLE 3.
VARIOUS CAUSES OF DEATH IN 1943.

	Total.	M.	F.
Typhoid and Paratyphoid	0	0	0
Cerebro-spinal Fever	1	0	1
Scarlet Fever	0	0	0
Whooping Cough	0	0	0
Diphtheria	0	0	0
Tuberculosis of Respiratory System	3	2	1
Other Forms of Tuberculosis	2	0	2
Syphilis	1	1	0
Influenza	9	5	4
Measles	1	0	1
Acute Poliomyelitis and Polioencephalitis	0	0	0
Acute Encephalitis	0	0	0
Cancer: Oesophagus and Buccal Cavity	0	0	0
„ Uterus	5	0	5
„ Stomach and Duodenum	5	4	1
„ Breast	1	0	1
„ All other sites	17	8	9
Diabetes	2	0	2
Intracranial Vascular Lesions	23	6	17
Heart Disease	60	33	27
Other Diseases of Circulatory System	3	2	1
Bronchitis	12	5	7
Pneumonia	11	8	3
Other Respiratory Disease	3	2	1
Ulcer of Stomach and Duodenum	1	1	0
Diarrhoea under 2 years	2	0	2
Appendicitis	0	0	0
Other Digestive Disease	15	7	8
Nephritis	5	2	3

	Total.	M.	F.
Puerperal Sepsis	1	0	1
Other Maternal Causes	1	0	1
Premature Birth	7	4	3
Congenital Malformations, Birth Injuries or Infantile Diseases	11	7	4
Suicide	4	1	3
Road Traffic Accidents	2	2	0
Other Violent Causes	15	14	1
All Other Causes	23	13	10
TOTAL	246	127	119

BIRTH AND DEATH RATES.—The birth-rate was 19.91 per 1,000 of the population and the death-rate was 11.28 per 1,000 of the population. The birth-rate is the highest recorded since 1925, and the death-rate is the highest since 1940. (See Table 2).

MARRIAGES AT HEANOR (WITH MARLPOOL).

The following table shows the number of marriages at Heanor (with Maripool) for the four quarters of the years 1934-1943 inclusive. It will be noticed that the high level in the marriage rate has dropped considerably in 1943. A continuation of this process will inevitably affect the birth-rate, in a very short period.

Year.	Qtr. ending Mch. 31.	Qtr. ending June 30.	Qtr. ending Sept. 30.	Qtr. ending Dec. 31.	Total Year.
1934	18	15	21	22	76
1935	9	27	21	21	78
1936	8	27	23	15	73
1937	19	19	24	23	85
1938	12	29	22	16	79
Total	66	117	111	97	391
1939	3	19	27	36	85
1940	10	26	12	23	71
1941	14	25	19	29	87
1942	26	16	19	25	86
1943	8	15	12	14	49
Total	61	101	89	127	378

According to the Registrar-General, the number of people married in the fourth quarter of 1943 was 70,835 lower than the average for the fourth quarter of the five years prior to 1942, and the marriage rate of 13.3 per 1,000 population is the lowest fourth quarter ever recorded for the country. Owing to the fact that the reservoir of marriageable girls is beginning to run dry, a continued decline in the marriage rate is inevitable, and the present increase in the birth-rate is not likely to persist for a very long period. In last

year's report I referred to this matter by quoting an extract from "The Times," and it will bear restating:—"The enormous number of first marriages was possible only by depleting the accumulated stock of spinsters who had reached adult age when the frequency of marriages was much smaller. This process must come to an end quite soon. It is impossible to keep the annual number of brides constantly above the level of the number of girls born 16 years earlier (minus the number of those who die in childhood). We must, therefore, before long expect a considerable decline in the number of marriages." And in the number of births.

INFANT MORTALITY.

The Infant Mortality Rate continues to rise.

1941	-	-	20.4 per 1,000 Live Births.
1942	-	-	60.1 per 1,000 Live Births.
1943	-	-	76.0 per 1,000 Live Births.

In 1941 the Infant Mortality Rate was the lowest in the county, but it will be seen from the table above that the rate has more than trebled in the last three years; it is well above the rate for the country which was 49.

Of the 33 deaths occurring in infants under 1 year of age, 20 were neonates (i.e. under 1 month) or 60 per cent. of the total; 12 died within 24 hours (36.3 per cent.); 3 died within 1-7 days (9 per cent.); 5 died over 7 days and under 1 month (15 per cent.). The number who died over 1 month of age and under 1 year accounted for 13 or 40 per cent. of the total.

CAUSES OF INFANTILE DEATHS.

Premature Birth caused 9 deaths (27 per cent.), (Registrar-General's figures are 7); Congenital Malformations caused 8 deaths (24 per cent.); Chest Infections caused 5 deaths (15 per cent.); 3 (9 per cent.) were due to Gastro-enteritis. The two deaths from Asphyxia were avoidable deaths: one of these was caused by a 7-day old infant being suffocated through overlaying, the other being accidentally drowned in its bath. Intussusception was the cause of death in 2 cases (this is one form of intestinal obstruction in which the bowel becomes invaginated within itself through irregular contraction and is a very dangerous condition). Measles, T.B. Meningitis, Abscess of Kidney and Convulsions caused 1 death each. Three of the cases of Premature Birth were associated with eclampsia, which is the terminal state of Nephritis of Pregnancy and is a potent cause of both maternal and infantile death. Of the 33 deaths, 32 were in legitimates and 1 was an illegitimate.

The total number of Still Births was 20, all being legitimate.

The Still Birth Rate was 0.91 (per 1,000 population), the rate for the country being 0.51. The Still Birth Rate for Heanor, per 1,000 births, is 44.0. The rate per 1,000 population of 0.91 is below that of 1942, which was 1.04. The number of foetal deaths which occur before the twenty-eighth week of pregnancy is unknown: the total in any one year must be very considerable, and I have a very strong suspicion that a number of them are not due to natural causes.

TABLE 4.
INFANTILE DEATHS.

No.	Sex.	Age.	Cause of Death.
1	F	18 hours.	Premature Birth.
2	F	4 months.	T.B. Meningitis.
3	M	2 weeks.	Spina Bifida.
4	F	3 weeks.	Asphyxia from Immersion in Bath.
5	F	7 months.	Bronchitis.
6	M	1 month.	Lobar Pneumonia.
7	F	11 months.	Measles.
8	M	7 days.	Suffocation from Overlaying.
9	M	30 minutes.	Premature Birth.
10	F	2 months.	Congenital Pulmonary Stenosis.
11	M	2 months.	Spina Bifida.
12	F	3 months.	Pneumonia.
13	F	1 day.	Congenital Pulmonary Atelectasis.
14	F	6 months.	Gastro-enteritis.
15	F	3 hours.	Premature Birth.
16	M	12 hours.	Premature Birth.
17	F	3 weeks.	Spina Bifida.
18	M	1 hour.	Premature Birth.
19	F	7 months.	Gastro-enteritis.
20	M	15 hours.	Congenital Heart Disease.
21	F	20 hours.	Premature Birth: Maternal Toxaemia.
22	M	5 minutes.	Premature Birth.
23	M	7 months.	Peritonitis: Abscess of Kidney.
24	M	1 hour.	Premature Birth: Eclampsia }
25	M	2 hours.	Premature Birth: Eclampsia } Twins.
26	F	1 day.	Spina Bifida.
27	F	8 months.	Lobar Pneumonia.
28	M	3 days.	Cervical Meningocoele.
29	M	4 months.	Pneumonia.
30	M	6 days.	Convulsions.
31	F	4 months.	Intussusception.
32	F	1 month.	Gastro-enteritis (following Dermatitis).
33	M	5 months.	Intussusception.

INFANTILE DEATHS - May be summarised as follows:—

Premature Birth	9 (27%)
Congenital Malformations	8 (24%)
Bronchitis	} 5 (15%)
Broncho-Pneumonia	
Pneumonia	
Gastro-enteritis	3 (9%)
Accidental (Asphyxia)	2 (6%)
Intussusception	2 (6%)
Measles	1 (3%)
Meningitis (T.B.)	1 (3%)
Abscess of Kidney	1 (3%)
Convulsions	1 (3%)

TOTAL 33

Number who died in 24 hours was	12 (36.3%)
Number who died over 1 and under 7 days was... ..	3 (9%)
Number who died over 7 days and under 1 month was...	5 (15%)
Number who died over 1 month was	13 (40%)
Neonatal deaths (deaths in the first month of life) were 20 in number or 60% of the total.	

CAUSES OF INCREASE IN STILL BIRTHS AND INFANTILE DEATHS.

Last year, I reviewed possible causes as to why it is that so many infants are born to descend almost straight from the womb to the tomb and why, for so many, the womb IS the tomb. The rate for the country is going down, but there are many places where the infant death-rate is even lower than it is for England and Wales. In some of the towns in this country the rate is still very high—higher than it ought to be. Many reasons are given; the environmental factor, in my opinion, is overstressed. No one can say of Heanor that it is due to privy middens, for they have all but disappeared years ago; water conservancy has been the rule for many years. There are no epidemics of the old dreaded summer diarrhoea. Overcrowding in houses remains a somewhat stubborn spot, but I do not believe that the housing conditions are responsible for the increase which has taken place within the last three years. Certainly, I hope very much that housing conditions may improve very soon, that people may be housed decently, that insanitary, damp and dilapidated premises may soon be abolished; and in this particular, whatever the defects of pre-fabricated houses may be, they are infinitely preferable to the conditions in which some people are living or existing to-day.

There are many towns where the housing conditions are much worse than in Heanor, where they have had infinite trouble on account

of air raids and where the infant death rate has not gone up. House shortage and overcrowding is a nation-wide condition, yet new records of low infant mortality have been set up.

Foetal and neonatal mortality are together responsible in England and Wales for a loss of about 43,000 lives annually, compared with 28,000 deaths from tuberculosis and 56,000 from cancer; and since 1905 when neonatal deaths first appeared in the Registrar General's Report, little progress has been made in solving the problem. (Parsons, 1943). "Hitherto the study of the newborn child has been neglected by British paediatricians, but recently the work of Cameron, McNeil, Capon, Spence, Graham and Moncrieff has produced signs of the troubling of the water in the pool of Bethesda. The care of the newborn baby usually devolves upon the obstetrician; **rightly so when he is a general practitioner but not if he is a consultant.**" (Prevention of Neonatal Disease and Death, Lancet, 1943 (1) 267, Parsons).

I have indicated before, that dietetic deficiencies are the cause of much pre-natal and neonatal death, and evidence accumulates to show that dietetic deficiencies are indeed responsible for many of these cases. In a feeding experiment covering 10 areas in the North of England and 18 in South Wales, recorded by M. I. Balfour (Lancet, 1943, (1), 208-11), some 11,618 pregnant women received food supplements consisting of vitamins A, D and B complex, with calcium, iron and phosphorous, and were compared with 8,095 pregnant women who received none of these as supplements. There was a **significant reduction in the still birth and neonatal mortality rates of the supplementary fed groups as compared with the controls.** The maternal deaths in the series were too few for conclusions to be drawn; but analysis of the records showed that supplementary feeding with a yeast extract did result in a statistically significant reduction in the still birth rate and in neonatal mortality.

Ebbs, Tisdall and Scott (Journ. Nutrition, 1941, 22, 575) working in Toronto, showed that a good pre-natal diet resulted in a lower incidence of miscarriages, still births and premature births. The neonatal mortality was also favourably influenced. These results have been criticised by Parsons as based on too few observations. But the experiment of The People's League of Health based on over 5,000 women, half being used as controls, and taken alternately from women of ten antenatal departments of London Hospitals, showed that supplementary feeding produced a prematurity rate which was 17 per cent. less in those who received supplementary feeding, and the toxæmia of pregnancy was 30 per cent. less in those receiving supplements compared with the controls.

"What shall I do?" Thus Christian in Pilgrim's Progress. There is much which can be done which is left undone. There is clear evidence that better antenatal feeding will reduce not only maternal risks but the premature birth rate. "Skilled nursing will produce good results with a simple regime; without it, incubators, humidifiers, air-conditioned rooms with oxygen on tap will all be unavailing."

(Parsons). With reduction in the still birth and premature birth rate, the infant mortality rate will go down still more; and there is evidence that even congenital malformations can be reduced in their incidence by similar means, for, as Prof. Parsons has pointed out, Warkany and his associates in 1943 have shown that rats fed on deficient diets during pregnancy produce offspring with deformities such as shortening of the mandible, shortening and deformity of the limbs, syndactyly, fusion of the ribs and cleft palate.

The prevention of infection in infants is of the greatest importance; to expose a newborn baby to a common cold is all too frequently to give it its death of cold or to make it seriously ill with pemphigus, and is little short of criminal neglect. The newborn slip into pneumonia unheralded by fanfares of trumpets such as rigors, convulsions or high temperatures; indeed, they will lie quietly dying in their cots without anyone suspecting the real state of affairs unless those about them happen to have experience. In dealing with the new born one can never be too fussy or too careful, for they are extremely susceptible to cross-infection with pneumonia, dysentery, whooping cough, bronchitis, gastro-enteritis, streptococcal and staphylococcal infections. To rush all babies to hospital on every occasion may be to rush many of them to their deaths. For the same reason, massing the very young into day nurseries, nursery schools and so forth is open to serious objection; segregation not congregation should be the rule. In most cases, infants are best off in their own homes.

As Professor Parsons has said, the growing demand for institutional midwifery is likely to continue after the war. "Indeed, it is estimated that 50 - 80 per cent. of pregnant women will wish to be delivered in hospitals and maternity homes. Prevention of infection is, therefore, an institutional problem and, unfortunately, the risk of contracting an acute infective illness is much greater than in the home. I have been impressed by the poverty of much of the accommodation provided for the newborn even in modern hospitals. There is rarely any effort to provide proper spacing of the cots; indeed, sometimes these are made up in batteries of from 5 - 8 cribs placed cheek by jowl and located in any hastily improvised side room or bathroom. Nurses are by no means always masked, and though breast feeding is far from universal, milk kitchens are rare. In some hospitals there is inadequate supervision of visitors to the nursery; indeed, in some public assistance institutions the "aged and infirm" inmates help with the nursing, a kindly action on their part and no doubt some relief to their monotonous existence, but fraught with dangerous possibilities for the babies. It is only fair, however, to say that one of the most charming, well-run and well-spaced nurseries that I have seen is situated in an ancient public assistance institution in a small country town." One instance, gentlemen, of the fact that fine feathers do not always make fine birds, and that it is not necessary to have imposing facades or chromium plated fittings to get good results. Air and light and spacing are what is most required.

I am far from convinced that institutional treatment is the solution for all the troubles associated with infant mortality, or that, as the B.M.J. insists (1943, (2), 584), in a leading article, that "the paediatrician must have full control of the infant, normal and abnormal, from the hour of its birth. He must formulate the procedure for the feeding of the infant, for the care of the premature and the treatment of infected babies." In the first place, if the babies were properly managed, there would be fewer infections; if the mothers were properly managed during their pregnancies there would be fewer prematures; and lastly, if by paediatrician the B.M.J. has in mind the consultant and the specialist, as I am sure it does, they are certainly not the best people for the job, and before they commence to throw stones at general practitioners who practise obstetrics, they should put their own house in order first. Does the writer of that leader in the B.M.J. mean that paediatricians should insist on washing and changing the napkins and doing all the unpleasant jobs? It is easy to cast discredit on nurses, but a good maternity nurse is worth her weight in gold. Specialisation in government is the negation of democracy; specialisation in medicine is dear to the hearts of the budding bureaucrats who seek to control it in all its aspects. There is to-day a movement to oust the general obstetrician from the management of all midwifery, and plans are on foot for the establishment of a National Maternity Service: nay more, a National Thoracic Surgery Service, and lately there is a faint suggestion that we should have a National Renal Service and also a National Dental Service. If this sort of thing develops, you will have people running about all over the place to this and that clinic: you will have perpetuated the same errors of which the advocates of the National Maternity Service complain, namely, a lack of co-ordination between the medical officers in the ante-natal clinics and those who do the work; and the ordinary practitioner will become merely a clinical clerk referring cases to the appropriate service for the patient's needs. As for the general surgeon who is the pillar who supports most of us when we are in trouble, there will be left little for him to do but grub about in the region of the navel.

As for the claims which are made that breast feeding is the best for infants, there is, as yet, no reliable statistical evidence to support the view. There are a number of instances where it can be shown that breast feeding is anything but the best for babies. I mentioned the example of the island of Nauru last year. Lydia Fehily has recently described the fate of many infants in Hong Kong which, though all on the breast, died suddenly in such numbers that the Chinese mothers have a belief that evil spirits out of jealousy snatch them away—especially plump baby boys. The cause of death is an acute milk intoxication due, it is suggested, to the occurrence of methylglyoxal in the mothers' milk when their diets are very deficient in vitamin B. The illness develops suddenly with dyspnoea, cyanosis

(blue turns), abdominal pain, diarrhoea and screaming fits. All these women live largely on vitamin-poor carbohydrate (rice).

Now it should be obvious, that if you are going to maintain that breast feeding is better than artificial feeding with cows' milk, you must insist, as a first condition, that there is no question of the mothers' food being deficient in any particular, or that the diet is ill-balanced in its necessary constituents. There must be adequate amounts of first class protein, fats, carbohydrates, mineral salts and accessory food substances: moreover, the food must be palatable and not all scraped out of a tin. But is that done? It most certainly is not done in a large number of cases. I have often remarked that bad feeding arises not so much from lack of means as from want of sense: that a great deal of malnutrition comes about through fecklessness and laziness, and that farmers in general know more about the feeding and rearing of stock than human mothers know of infant management and feeding. To the farmer the problem has an economic side which he cannot afford to ignore: when the mother loses her child she is apt to put the blame on anyone but herself, and to declare that it was the will of God. What are we to think of women who sell their orange juice, turn their black currant purée into wine, give their milk away, or let father take the cod liver oil?

The vitamin B content of cows' milk is six to seven times greater than that of human milk: the cow's output is independent of its diet because it possesses the ability to manufacture vitamin B by bacterial synthesis, whereas the human mother is entirely dependent on her diet for the vitamin B content of her milk, which, according to Kon, who examined 1,000 samples, amounts to only 0.07 mg per pint. The vitamin K content of cows' milk is considerably greater than human milk; this constituent is important in preventing haemorrhagic disease of the newborn. Cows' milk is also richer in vitamins B2 and D: it is very slightly poorer than human milk in vitamin C. Only in vitamin A does cows' milk fall much below that of human milk.

As regards mineral matter, cows' milk is a particularly rich source of calcium and phosphorus: the mineral matter of cows' milk is over three times that of human milk. Another difference is that cows' milk contains two to three times as much protein, of which about six-sevenths is caseinogen and the remainder lactalbumin, whereas human milk contains one-third lactalbumin and two-thirds caseinogen. There is a lot of stuff talked about the indigestibility of cows' milk protein in infant feeding, so that it is common to dilute the milk with water to reduce the protein and add sugar to compensate for the relative poorness in lactose. What is often forgotten is that in premature babies the rate of growth is comparatively much greater than in full term infants, and their calorific needs are relatively greater. Nature provides for this in the case of young animals, as their rate of growth is so much faster than in humans, and this is the reason why cows' milk contains so much more protein and mineral

salts. Apart from the addition of vitamin C and vitamin D to cows' milk, it is only necessary to add iron in some form to the infant's diet. For these reasons, I think that suitably prepared cows' milk is preferable to indifferent human milk, especially in premature babies; and it is particularly important that they should be given relatively large amounts of vitamin B.

On the dome of the Graduation Hall of Edinburgh University these words from the Book of Proverbs are inscribed in letters of gold: "Wisdom is the principal thing; therefore get wisdom, and with all thy getting get understanding." One might add also, "Where there is no vision, the people perish: but he that keepeth the law, happy is he." Unless we look at and act upon these problems with vision and wise understanding many infants will remain but faded dreams in the minds of their mothers: lives which by our ignorance and lack of care have been denied the freshness of the world-to-be. But let us make sure of this—that we do nothing to bring into the world or to preserve for the future, children who it were better they should not survive. Professor Parsons has urged (B.M.J., 1944 (1), 271) that although the prompt treatment of haemolytic disease of the newborn (not to be confounded with haemorrhagic disease) by injections of Rh-negative blood, whilst it has improved the immediate prospects of survival gives no guarantee for its future health and that there is no evidence that it will prevent the development of "those dreaded sequelae of haemolytic disease of the newborn—kernicterus, cirrhosis of the liver and (possibly) polyostic fibrous dysplasia," and that in the event of kernicterus it is better to leave such untreated in the hope they will not survive.

The Rh-factor or agglutinin which is found in the red blood cells, is so called because it is also found in rhesus monkeys. It is present in about 85 per cent. of the people in this country and about 15 per cent. have Rh-negative blood. The Rh-factor is inherited by a pair of genes Rh and rh, Rh being dominant. When the mother is Rh-negative (genotype rhrh) and the father is Rh-positive (genotype RhRh or Rhrh), all the children will be Rh-positive if the father has the genotype RhRh: if the father has the genotype Rhrh, each child will have an equal chance of being positive or negative and there will be both positive and negative children, although all may be positive or all negative. The theory is, that a man with Rh-positive blood mates with a woman with Rh-negative blood; if her child is Rh-positive she may produce in her blood antibodies or anti-Rh agglutinins as a result of iso-immunisation with the foetal blood. These antibodies pass through the placental circulation and cause haemolysis or destruction of the red blood cells; the child when born may be intensely jaundiced or develop very intense jaundice shortly after birth; or it may be dropsical (hydrops foetalis), or it may be very anaemic.

There is at present no known method of preventing the occurrence of haemolytic disease of the newborn, and when a woman has given birth to one affected child, subsequent children are likely to be affected. Many infants suffering from haemolytic disease are still-born, often prematurely. If women have previously given birth to infants thought to be affected with haemolytic disease, they should have their blood tested for the Rh-factor, and if the blood is Rh-negative, it is better that she should be delivered in a maternity hospital where Rh-negative blood is available for transfusion of the infant. The importance of the formation of anti-Rh agglutinins (iso-immunisation) by an Rh-negative person, whether this arises as the result of pregnancy or of transfusion, is that a subsequent transfusion of Rh-positive blood may lead to a fatal haemolytic reaction in the patient. If Rh-negative blood is not available, plasma or serum must be used.

TABLE 5.
INFECTIOUS DISEASES.
CASES NOTIFIED DURING 1943.

		Number of Cases Removed to Notified. Hospital.	
Tuberculosis—Pulmonary	(14)	11	6
Tuberculosis—Other Forms	(8)	7	3
Small Pox—			
No. Vaccinated and Re-Vaccinated			
No. Vaccinated in Infancy	(0)	0	0
No. Unvaccinated			
Scarlet Fever	(49)	66	26
Diphtheria	(6)	1	0
Enteric (Typhoid) Fever	(0)	0	0
Puerperal Pyrexia	(3)	4	4
Cerebro-spinal Fever	(1)	3	2
Erysipelas	(19)	17	0
Ophthalmia Neonatorum	(2)	0	0
Encephalitis Lethargica	(0)	0	0
Acute Poliomyelitis	(1)	1	1
Pneumonia	(56)	71	32
Measles	(387)	380	0
Whooping Cough	(20)	151	0
Bacillary Dysentery	(4)	2	0

(Figures in parenthesis are those for 1942).

TABLE 6.
CASES OF NOTIFIABLE DISEASES AT VARYING AGES DURING 1943.
AGE GROUPS.

Disease.	Under 1 year	1—	2—	3—	4—	5—	10—	15—	20—	35—	45—	60—	Total
Small Pox	0	0	0	0	0	0	0	0	0	0	0	0	0
Scarlet Fever	0	0	1	1	7	31	14	3	5	4	0	0	66
Diphtheria	0	0	0	0	0	0	0	1	0	0	0	0	1
Enteric Fever (including Paratyphoid)	0	0	0	0	0	0	0	0	0	0	0	0	0
Puerperal Pyrexia	0	0	0	0	0	0	0	0	3	1	0	0	4
Pneumonia	4	3	2	3	1	6	4	2	4	8	12	22	71
Measles	19	56	38	69	56	132	6	0	3	0	1	0	380
Whooping Cough	11	21	21	22	20	54	0	0	2	0	0	0	151
Bacillary Dysentery	0	0	0	0	0	0	0	0	0	2	0	0	2
Erysipelas	0	0	0	0	0	0	0	0	2	3	4	8	17
Cerebro-spinal	0	1	0	0	0	1	1	0	0	0	0	0	3
Poliomyelitis	1	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	35	81	62	95	84	224	25	6	19	18	17	30	696

PREVALENCE OF AND CONTROL OVER INFECTIOUS OR OTHER DISEASES.

DIPHTHERIA.—The number of cases notified was 1 only. This case occurred in a girl aged 17 years who had never been immunised. No other case arose in contacts, although the day before being seen she had attended a wedding party as a bridesmaid, and was feeling ill at the time. From the history obtained, it appears probable that the infection was picked up at a dance in a neighbouring town which she attended a short time before taking ill with diphtheria.

The number of children immunised against diphtheria in 1943 was:—

	Age under 5 years.	Age 5 years and over but under 15.	Total
Half-year ended 30th June ...	202	87	289
Half-year ended 31st Dec. ...	173	33	206
Total	<u>375</u>	<u>120</u>	<u>495</u>

Tables 7 and 8 show the percentage of school children and those under 5 years of age who have been immunised at 31st December. Amongst the under fives, the percentage is 2 per cent. less than the same group in 1942. The Heanor/Marlpool/Langley Mill areas are well immunised (88 per cent. and 80 per cent.); the Codnor/Loscoe area is much less well protected and falls far behind with only 45 per cent.

TABLE 7.

YEAR.	IMMUNISED.		DIPHTHERIA.	
	Under 5 years.	Over 5 years.	Cases.	Deaths.
1938	Nil	2 per cent.	134	8
1939	8 per cent.	17 per cent.	40	5
1940	12 per cent.	22 per cent.	9	0
1941	32 per cent.	57 per cent.	49	1
1942	62 per cent.	95 per cent.	6	1
1943	60 per cent.	94 per cent.	1	0

TABLE 8.

HEANOR URBAN DISTRICT (DIPHTHERIA IMMUNISATION).

School.	% Immunised at 31-12-43.	No. in School
1. Heanor Loscoe Road Infants'	99.2	249
2. Heanor Mundy Street Boys'	99.1	123
3. Marlpool Boys' Council	99.1	116
4. Heanor Loscoe Road Boys'	99.0	315
5. Langley Mill Council Girls'	98.4	260
6. Marlpool Infants'	97.9	98
7. Langley Mill Elnor Street Infants' ...	97.4	118
8. Langley Girls' and Infants'	97.0	240
9. Heanor Lockton Avenue Girls'	96.8	95
10. Langley Mill Boys'	96.4	251
11. Heanor Commonside Infants'	94.3	106
12. Langley Mill (Aldercar) Infants' ...	93.6	126
13. Heanor Secondary School	93.4	336
14. Codnor (Cross Hill) Boys'	93.3	105
15. Codnor Central Council	92.2	194
16. Codnor Junior Girls' (Jessop Street)...	90.1	112
17. Heanor Loscoe Road Girls'	89.7	326
18. Codnor Council Infants' (Mill Lane)...	84.8	165
19. Loscoe Denby Lane Infants'	83.3	138
Average	94.67	Total 3,473

3,288, or 94.67% of 3,473 children on the school registers
(5 to 15 years) have been immunised.

UNDER-FIVES AT 31-12-43.

Health Visitor.	Age Group.			
	No. 0-5 yrs.	Per cent. Immunised.	No. 1-5 yrs.	Per cent. Immunised.
Miss Webb	619	66	466	88
Miss Stevens	898	64	727	80
Miss Wheatley	290	32	207	45
TOTAL	1807	60	1400	78

On 26th January, 1944, I received an enquiry from the Medical Superintendent of the Little Bromwich Hospital, Birmingham, concerning an evacuee, Elizabeth A., aged 13, who had been evacuated in

1941 to this area. Her record showed that she had been immunised on the following dates:—

18-3-41	TAF	0.5 cc.
25-3-41	TAF	1.0 cc.
8-4-41	TAF	1.0 cc.

The child was admitted to hospital on 14-12-43 at Birmingham with a diagnosis of faucial diphtheria. It was stated, however, that she was Schick negative with a positive nose and throat swab. It appears that this was not a case of diphtheria, but an immune carrier, with a non-diphtheritic sore throat.

Most of the children in the under-fives group are treated with APT (BWCo.) For the first dose, not less than 0.3 cc. is given, and after an interval of four weeks a second dose of 0.5 cc. When TAF (BWCo.) is used, three doses of 1.0 cc. are given at intervals of 14 days.

Bousfield (B.M.J., 1943, 2, 706) has shown that the danger of failure to produce a satisfactory immunity lies most often in deficiency of the primary stimulus, and his results indicate that when using minimum or suboptimal quantities of APT the primary stimulus should consist of not less than about one-half or more than two-thirds of the total Lf units employed. The larger primary dose of 0.3 cc. (in some cases 0.4 cc) has not, in my opinion, produced troublesome reactions in those under five years of age. Bousfield has also shown that when an adequate total dosage of APT is used, the interval between the primary and secondary doses may be shortened to 14 days without loss of efficiency in the conversion rate of Schick positive to Schick negative.

Diphtheria mortality has declined to vanishing point as Table 9 shows.

The notification rate for Heanor was 22 times LESS than that of England and Wales, and 28 times LESS than that of the 126 Great Towns. The death rate from diphtheria for Heanor was NIL; that of England and Wales was 0.03 per 1,000 population.

TABLE 9.

YEARS.	CASE MORTALITY PER CENT.
1893-1897 inclusive	6.4
1898-1902 "	6.9
1903-1907 "	9.2
1908-1912 "	13.1
1913-1917 "	6.6
1918-1922 "	6.1
1923-1927 "	5.4
1928-1932 "	2.5
1933-1937 "	3.2
1938-1942 "	6.3
1943- "	0.0

Between the quinquennium 1928 - 1932 and the quinquennium 1938 - 1942 the mortality had more than doubled; but since immunisation became really effective in the last quarter of 1941 and in 1942-3, the mortality has declined to nil. It is not pretended that immunisation will protect all of the people all of the time, but it will give a very considerable protection against a fatal issue at the most dangerous age, which is under five years of age. It is to be hoped, therefore, that parents will not neglect having immunisation carried out as soon as possible after their children have attained their first birthday.

TABLE 10.
DIPHTHERIA IMMUNISATION, NOTIFICATIONS AND DEATHS
FOR THE YEARS 1938 - 1943 INCLUSIVE.

IMMUNISATION.

Year.	Age under 5 years.	Age over 5 and under 15.	Total.
1938	0	102	102
1939	138	602	740
1940	74	295	369
1941	317	1456	1773
1942	842	949	1791
1943	375	120	495
Total	1746	3524	5270

NOTIFICATIONS.

	Number Notified.	Deaths.
1938	134	8
1939	40	5
1940	9	0
1941	49	1
1942	6	1
1943	1	0
Total	239	15

LISTERIOSIS.—During July two sisters were seen both of whom suffered a prolonged bout of fever associated with sore throat, swollen neck glands, and, later, conjunctivitis. Specimens of blood were sent to the Arlesey Laboratory and were reported on by Professor R. A. Webb as follows:—

"The serum sample agglutinated *Listeria monocytogenes* strain '58. xxiii' - rodent) to a titre of 1/50 and agglutinated 'B.Ch.G' (human glandular fever) to a titre of 1/50. Agglutination to a titre of 1/25 has been observed in some miscellaneous sera from febrile diseases (not glandular fever) and very occasionally to 1/50 or 1/100."

About 14 days later, on 28-7-43, a further sample was sent from both sisters and reported on as follows:—

	58. xxiii (rodent).	B.Ch.G (human).
Brenda O.	1/250	1/50
Mavis O.	1/250	1/50
Mrs. O. (mother) ...	0	0

The girl Mavis O. was the first case, and she was very ill for a considerable period; later, the other sister followed suit with a similar illness, and later still the mother after the other two cases had recovered. The mother had a throat infection without glandular enlargement. Some time before the first case arose in this house, a number of pet rabbits kept by the father all died.

Listeria monocytogenes was first isolated from guinea pigs and rabbits during an epizootic at Cambridge in 1924; the two prominent features were multiple focal necroses in the liver and an increase in the mononuclear blood corpuscles. Other animal infections with this organism have been recorded on the South African veldt, in New Zealand and in New Jersey amongst cows with symptoms of encephalitis. Reports of meningo-encephalitis and encephalo-myelitis in sheep and cattle, goats and swine, have been recorded in numerous places in the U.S.A., Russia, and Germany. Epidemic abortion in cattle and sheep has also been recorded. Extensive outbreaks of infection in fowls have occurred in England with a high mortality. Since 1924-5, only once has rodent listeriosis been recorded, which was in a single pregnant rabbit at Cambridge on the exact site of the epizootic in rabbits and guinea pigs of 16 years before. So far, no listeriosis has been proved to occur in rats, though on account of the wide distribution of the organism, it is a distinct possibility.

The importance of *List. monocytogenes* is that it can cause meningitis and meningo-encephalitis in man analogous to the infection of sheep and cattle. It was first observed in the U.S.A. in 1933, the organism being first isolated from the blood of a day-old infant. Up to 1943, some 14 cases only had been recorded, of which 8 died. The first case reported in Great Britain was regarded as a case of meningitis due to an unusual diphtheroid bacillus; in 1937 Webb and Barber proved that this organism was *List. monocytogenes*. There is evidence that the organism is the cause of glandular fever—at

least in some cases. I regret that the two Heanor cases did not have blood counts done; clinically both appeared to be glandular fever. The Paul and Bunnell test was repeatedly negative.

TUBERCULOSIS.—The number of cases of Pulmonary Tuberculosis notified was 11, which is a reduction of 3 on the previous year. The number of cases of Non-Pulmonary Tuberculosis notified was 7, which is a reduction of 1 on 1942. I feel certain that the notification of non-pulmonary tuberculosis does not reflect the real state of affairs, and that cases arise which are not notified. The number of cases remaining on the register at 31st December was:—

	Males.	Females.	Total.
Pulmonary Tuberculosis	30	29	59
Non-Pulmonary Tuberculosis	28	37	65
	—	—	—
Total for 1943	58	66	124
	—	—	—
Pulmonary Tuberculosis	31	27	58
Non-Pulmonary Tuberculosis	28	34	62
	—	—	—
Total for 1942	59	61	120
	—	—	—

On the subject of grants to those who fall out of employment owing to the contraction of tuberculosis which was published early in 1943 by the Minister of Labour, the Minister of Health ruled that the grant is to enable persons to give up work temporarily "for treatment which is in the interest of the public health no less than their own." If the tuberculosis officer says "no recovery," the Exchequer says "no grant." The task of the tuberculosis officer is a thankless one. Commenting on this, the *Lancet* (1943 (2) 607) remarked: "Do not the invidiousness and the unhappiness and the increased risk of infection outweigh any small saving of public money? Unless the scheme is made comprehensive, in accordance with its first intention, shall we not drift into the position that the State only helps the sick civilian in proportion to his capacity to return the help in services rendered? On the field of battle we do not give priority to the casualties who are expected to fight again." But in the field of cancer, there is a tendency to accept for deep X-ray treatment only those cases considered by those who direct the treatment and control the means by which it is given to inform the local radiologists what kind of cases they are to accept and what to cast out.

TABLE 11.
TUBERCULOSIS.

Age. Periods.	New Cases Notified.				Deaths.			
	Pulmonary.		Non-pulmonary.		Pulmonary.		Non-pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
Under 1	0	0	0	1	0	0	0	1
1-5	0	0	0	0	0	0	0	0
5-15	0	0	0	3	0	0	0	0
15-25	2	2	1	0	0	0	0	0
25-35	1	5	0	1	1	1	0	1
35-45	0	0	0	0	0	0	0	0
45-55	0	0	0	1	1	0	0	0
55-65	1	0	0	0	0	0	0	0
Over 65	0	0	0	0	0	0	0	0
TOTAL ...	4	7	1	6	2	1	0	2

SCARLET FEVER.—The number of cases notified was 66, which is an increase of 17 on 1942. All the cases recovered. 26 were removed to hospital. Many of the cases were mild and some only notified during the peeling stage. I have observed that there is a tendency for scarlet fever to increase in severity, which, if it continues, will be followed by an increase in the incidence of rheumatic fever.

MEASLES.—During the early part of the year, measles was exceedingly prevalent: one case died. The number of cases notified was 380; many cases were never seen by any doctor. The continuance of this epidemic concurrently with influenza and whooping cough during the first three months of 1943 made medical life a very hard business indeed.

WHOOPING COUGH.—In 1942, 20 cases were notified. During 1943 the number rose to 151. No cases of either measles or whooping cough were removed to hospital; these cases are best nursed at home, where the possibilities of cross infection are minimised.

PNEUMONIA.—The number of cases notified was 71, which is an increase of 15 on the number notified in 1942. The increase is due to the prevalence of influenza during the year. In addition to these cases, there were a very large number of cases of pleurisy, which were secondary to influenza and are not included in the total. 32 cases of primary or influenzal pneumonia were removed to hospital locally. In

my experience, both cases of pleurisy and pneumonia associated with influenza responded well to sulphapyridine. There were 11 deaths, and influenza was the cause of 9 deaths in addition to this total.

PUERPERAL PYREXIA.—4 cases were notified during the year; all were removed to hospital. The County Council have an arrangement whereby cases of puerperal pyrexia from this district are accepted by the Derbyshire Royal Infirmary for treatment. One of the cases died. I wish to emphasise that under the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, the definition of puerperal pyrexia is stated thus: "The expression 'Puerperal Pyrexia' means ANY FEBRILE CONDITION [other than a condition which is required to be notified as Puerperal Fever under the Infectious Diseases (Notification Acts)] occurring in a woman within 21 days after childbirth or miscarriage in which a temperature of 100.4 degrees Fahrenheit (38 degrees Centigrade) or more HAS BEEN SUSTAINED DURING A PERIOD OF 24 HOURS OR HAS RECURRED DURING THE PERIOD." It appears that cases of breast abscess in parturient women within three weeks of giving birth to a child are, in some instances, not regarded as puerperal pyrexia by the attendant: these cases being associated with high and prolonged fever.

BACILLARY DYSENTERY.—Two cases were notified during 1943, compared with 4 for 1942. There were no deaths. Bacillary dysentery, more often than not, goes by default and no action is taken by those who contract the disease. Sonné dysentery is often mild; but it may be very severe. There is a tendency to look upon bacillary dysentery light-heartedly. The Belper Joint Fever Hospital Board, whilst they accept cases of typhoid and paratyphoid, do not take bacillary dysentery into their wards. I am at a loss to say why they make the distinction, as in certain instances, where the housing conditions are appalling owing to overcrowding, it is impossible to prevent the whole household becoming infected if a case arises. In 1944 there was a heavy outbreak of dysentery in two infant schools in this area, which gave rise to a great deal of trouble.

SMALLPOX.

ENTERIC FEVER.

ENCEPHALITIS LETHARGICA.

OPHTHALMIA NEONATORUM.

} No cases arose.

CEREBRO-SPINAL FEVER.—Three cases were notified; two were removed to hospital: one, aged 15 months, died. The cause of death was stated to be meningococcal encephalitis.

ACUTE POLIOMYELITIS.—One case was notified and was removed to Isolation Hospital. The case occurred in a child of 11 months of age; death terminated the case.

ERYSIPELAS.—Seventeen cases were notified, and all recovered. No case was removed to hospital. Sulphapyridine has simplified the treatment of this disease.

SCABIES.—95 cases were detected during the year. Towards the end of 1943, it was decided to open a Cleansing Station to deal with these cases and any other verminous conditions. One fact regarding Scabies must be emphasised—it is a family disease and when treating any case it is essential to treat all the other members of the family or household simultaneously. The need for a Cleansing Centre has been long felt, though the difficulties of obtaining suitable persons to treat the cases are considerable. Three applications of benzyl benzoate emulsion are given to each case and contacts on successive days. In addition, small articles of personal underclothing are steam disinfected with the portable disinfector which I had made some years ago, and which is illustrated in Figs. 4 and 5. This consists of two chambers—one for packing whilst the other is in use. Steam is generated by a gas burner under the copper boiler, which is enclosed so as to prevent draught when in use outside. Steam is led into the zinc-lined box by a steel pipe, and enters the chamber at the bottom and disinfects the clothing by upward displacement. (It was found that when the pipe stopped short at the top of the box, steam would not go more than half way down). A temperature of 80°C is easily attained. The apparatus is particularly useful for delousing small articles of clothing when no Thresh disinfector is available. The boxes have open tops and fronts, which are made tight by means of wing nuts and bolts.

VERMINOUS CASES.—Out of 2,596 children examined, 130 were found to have verminous heads during 1943—approximately 5 per cent. Some of these cases caused a great deal of trouble: in several instances whole families were found to be lousy and were so badly infested that wholesale cropping of the hair and shaving of the head was carried out. In one case, the mother and three very young children had heads crawling with masses of lice under impetiginous crusts. In yet another family—a large one—where all were affected, compulsory cleansing under the Scabies Order had to be applied. The mother, in the first instance, had refused to be cleansed, and after being warned to attend for cleansing went to a hairdresser, who gave her a wash and a set, but when she was seen shortly afterwards, a dozen or so fat lice were found in her head and masses of nits in her curls! In yet another family, one of the Health Visitors has had during the last three years to take action on no fewer than 72 occasions for lousiness in members of the woman's family, who are attending school. These are merely instances—they are not the full catalogue.

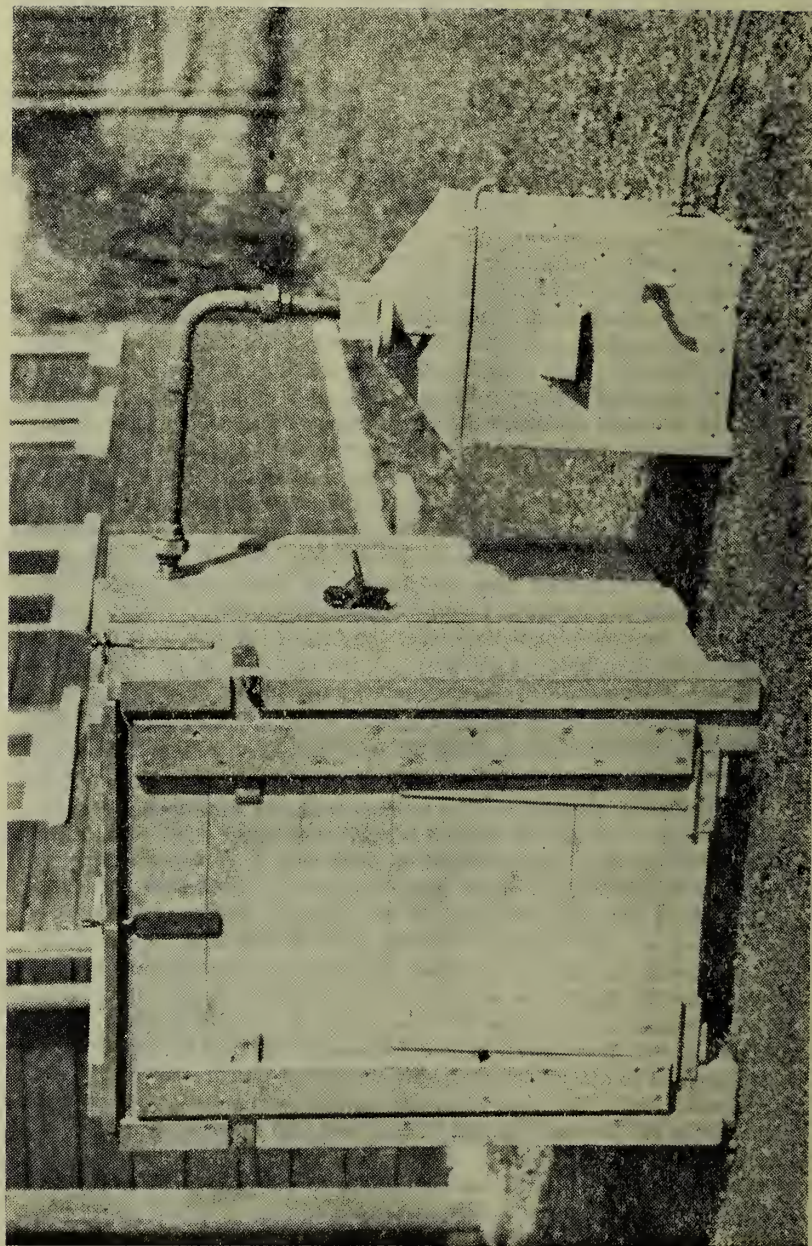


FIG 4.—Portable Steam Disinfector. As used for de-lousing small articles of personal clothing, blankets and sheets.

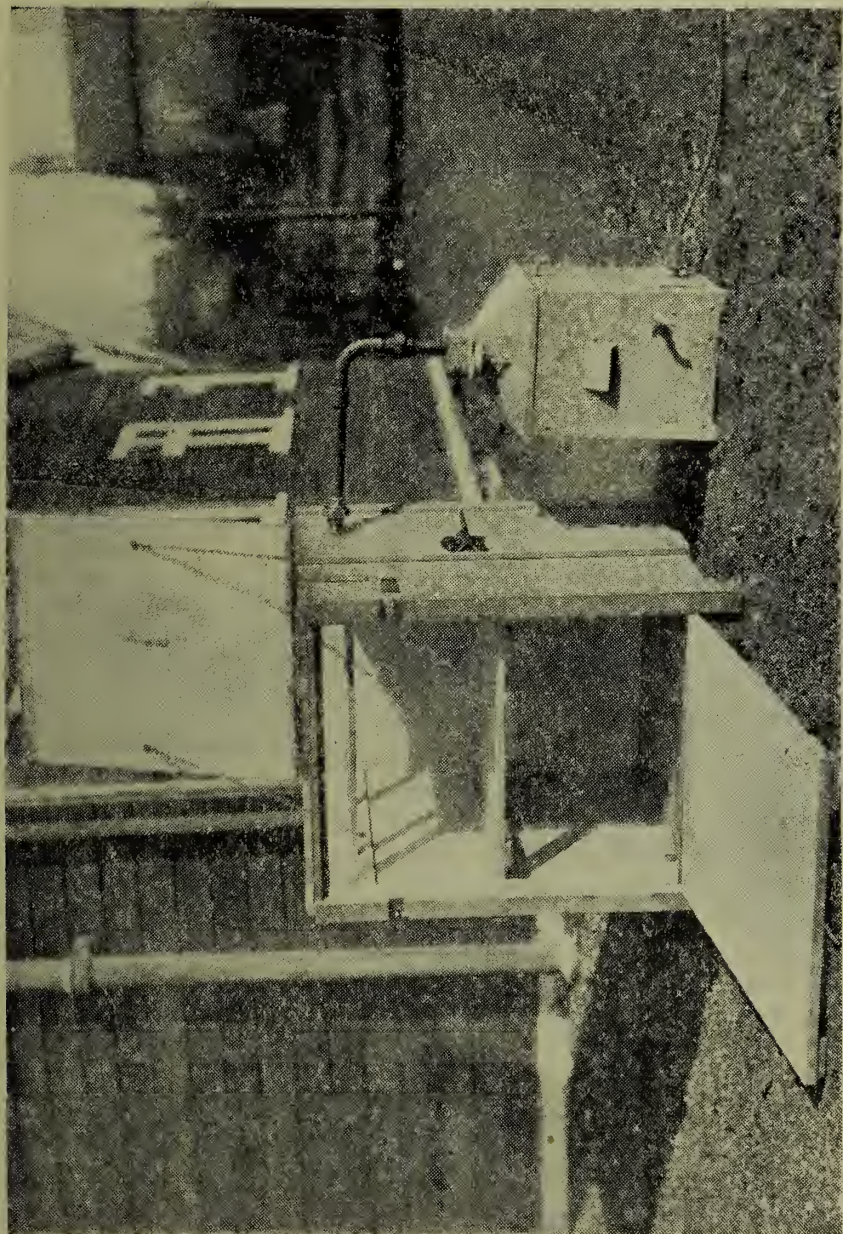


FIG. 5.—Portable Steam Disinfector. For use as described in Fig. 4.

TABLE 12.

BIRTH-RATES, CIVILIAN DEATH-RATES, ANALYSIS OF MORTALITY, MATERNAL MORTALITY, AND CASE RATES FOR CERTAIN INFECTIOUS DISEASES IN THE YEAR 1943.

	Heanor U.D.	England and Wales.	126 C.B.'s and Great Towns, including London.	148 Smaller Towns, Resident Population 25,000 - 50,000 at 1931 Census.
	Rates per 1,000 Civilian Population.			
Live Births	19.91	16.5	18.6	19.4
Still Births	0.91	0.51	0.63	0.61
Deaths—				
All Causes	11.28	12.1	14.2	12.7
Typhoid and Paratyphoid	Nil	0.00	0.00	0.00
Scarlet Fever	Nil	0.00	0.00	0.00
Whooping Cough	Nil	0.03	0.03	0.03
Diphtheria... ..	Nil	0.03	0.04	0.04
Influenza... ..	0.41	0.37	0.36	0.37
Smallpox	Nil	Nil	Nil	Nil
Measles	0.04	0.02	0.02	0.02
	Rates per 1,000 Live Births.			
Deaths under 1 year of age	76	49	58	46
Deaths from Diarrhoea and Enteritis under 2 years of age	4.6	5.3	7.9	4.4
	Rates per 1,000 Civilian Population.			
Notifications—				
Typhoid Fever	Nil	0.01	0.01	0.02
Paratyphoid Fever	Nil	0.01	0.01	0.01
Cerebro-spinal Fever ...	0.13	0.08	0.10	0.06
Scarlet Fever	3.02	3.01	3.29	3.54
Whooping Cough	6.92	2.54	2.82	2.25
Diphtheria... ..	0.04	0.88	1.12	0.77
Erysipelas... ..	0.78	0.31	0.35	0.27
Smallpox	Nil	Nil	Nil	Nil
Measles	17.43	9.88	9.23	9.77
Pneumonia	3.25	1.34	1.62	1.16
	Rates per 1,000 Total Births (Live and Still).			
Notifications—				
Puerperal Fever	8.81	11.68	15.11	9.26
Puerperal Pyrexia				
Maternal Mortality—				
Puerperal Infections	2.20	0.39	Not available	
Others	2.20	1.90	Not available	
Total	4.40	2.29	Not available	

HOUSING.

There is considerable room for improvement in the housing conditions: in many houses there is considerable overcrowding and a good number require demolition as being totally unfit for habitation. For more than forty years this district has enjoyed an abundant water supply of unexceptional quality, which was obtained through the wisdom and vision of the late Alderman J. K. Fletcher. Privy middens and pail closets have likewise gone into the limbo of forgotten things long before the war, through the energetic action of your Sanitary Inspector. Many years ago when my father, your late Medical Officer, was compelled to take action to close polluted wells, an old woman on one occasion came out to him and said, "Tha' needna bother t' examine this watter: it ma'es the best tea i' Derbyshire, and I tell thee, that that well has never been known to run dry!" To which he had to reply, "No, and it never will so long as you use those privies at the top of the garden!" All these things have been swept away, with the result that the dirt diseases as they are called—typhoid fever for example—have gone. The paving of back yards, the paving of footpaths, the laying of drains and sewers, and the tarspraying of streets, have all contributed to the laying of dust, and epidemics of the dreaded summer diarrhoea have been laid also. But we are still left with the old problem of chronic house shortage and old property far gone in decay.

Some people say that bad houses make bad people. I simply do not believe that that is so. There are people who belong to what, for want of a better term, must be called "the dirty squad," for no matter what kind of a place they are put in they turn it into a filthy hovel; people who are sluttish and slatternly in their personal habits, filthy, feckless, lousy, and who attract bugs as easily as magnets attract pins. It is true that some people sink into apathy and despair under the load of the misfortunes their rotten old houses produce, and who, if they are given a chance, make a very different showing. There are people who mend their ways, but I know of some very poor people who have lived many years in very old houses who have always kept them most scrupulously clean. Here again, as with feeding habits, the bad conditions are aggravated by a want of sense more than by a want of means.

But there are some people who are so careless and indifferent, and so anti-social in their habits as to be a serious nuisance to others as well as a danger. I believe it is wrong to house such people cheek by jowl with clean decent folk. The hope that they will mend their ways is vain. Such people should be segregated from their neighbours and housed in special blocks of tenements. Such houses should have no wooden floors or skirting boards, or picture rails, or wall paper to harbour bed bugs; the stairs should be of concrete with iron hand-rails, and the fittings unbreakable as far as possible. And

should the tenants persist in keeping them in a dirty condition they might, periodically, be swilled out by the Fire Brigade after being stowed by the Health Department.

It may be objected that to segregate the "dirty squad" from the rest is to create new slums—to exchange new lamps for old and to make class distinctions. But to intermingle some people with others is very unfair to the rest who have to live by them. In the case of infectious disease isolation and segregation is accepted without question. It is not considered right that open tuberculosis should be allowed to be spread abroad or that virulent smallpox should be treated in conditions where it may infect others. And in the case of mental defectives special schools are provided.

But although the bad old environmental conditions have been removed or largely mitigated, you are now faced with what I referred to at the beginning of this report—the bad personal element or factor which is the most difficult thing in the world to correct. It will take a lifetime of education and of urging onwards to a better life to correct the faults and habits which produce so much unnecessary misery and distress. When my father was parish doctor he had to attend a well-known Heanor character who was known as Pat Mosh; on one occasion she asked him if he had "tuppence on him." When asked why she wanted twopence, she replied "for a bit of stuff," by which she meant opium. On being reprov'd for indulging in such a habit, which at that time was very common, she replied: "There's use and abuse of iverythin' and fules have no business wi' it." There is both a use and an abuse of houses and some are scarcely fit to possess them until they have been through a probationary period.

There are 6,410 houses in this area, of which 742 are Council houses. It appears that a number of the latter are "under-tenanted" and some are over-tenanted; for example, of the 701 houses (excluding the 41 bungalows for aged people) there are 2 six-room houses and 5 five-room and under houses occupied by one resident only, or 0.998 per cent. of the total; only two residents occupy 20 six-room houses and 56 five-room and under houses, or 10.841 per cent. of the total; from three to five residents occupy 97 six-room houses and 335 five-room and under houses, or 61.626 per cent. of the total; six to nine residents occupy 78 six-room houses and 91 five-room and under houses, or 24.108 per cent of the total; and ten or more residents occupy 15 six-room houses and 2 five-room or under houses, or 2.425 per cent. of the total.

Constant inspection and supervision is necessary in some cases, so much so that I would suggest that in the course of time a housing manager might be appointed to advise the Health Department and the Health Committee of necessary adjustments between the tenants and the landlord—in this case the Council.

I would suggest, further, when the time comes for the Council to consider the type of permanent house to be erected, that representative women be canvassed for their opinions as to the kind of house they want to live in. After all, it is the women who have to run them, to clean them, to wash, to cook, and get the children off to school. The men use them to sleep and to eat, and have little to do with the internal management. Faults have been committed in the past; indeed, I have been astonished at the smallness and inconvenience of some kitchens, the narrowness of passages and stairs, and the total absence of any nursery accommodation in many modern houses. Some are so cramped that when the pram is squeezed into the lobby it is difficult to get by. In many late 19th century houses in this area you stagger upstairs and along landings in total darkness. I have remarked previously in this report that our ancestors in the 17th and 18th centuries were wiser in their generation than we are in our own; in this regard I would refer you to a letter in "The Times" of December 9th, 1944, under the name of The President of The Royal Academy and others, describing an 18th century model house: "In this typical small house," they say, "the house of the common man, you find convenience, elegance and economy. It is to be found in slightly varying forms, and is built of the local materials that each district affords. Reduce this house to the 900 square feet of the Dudley report, and add the popular fittings by which alone a house is judged by the public at large, and it will be far better than those which are being erected all over the country as 'experiments.'" This house, of which "The Times" published both a ground floor plan and a photograph, has a good kitchen, with a separate scullery and larder, a lavatory, cloak room, and outside water closet; two stores, a dining room, sitting room and, what is most important, a nursery; on the first floor there are three bedrooms with a bathroom and two small rooms in the roof. (See Figs. 6, 7, 8 and 9). "It is remarkable," say the authors of this letter, "that after all the discussion about housing, the experimental houses themselves at Northolt and elsewhere do not exhibit one example that is worthy of our building inheritance." Nevertheless, the need for relief in housing is so urgent that some provision of a temporary character must be made without undue regard to architectural features, and that as quickly as may be; though it seems a pity that prefabricated houses must all look like stream-lined hen coops or rabbit hutches.

Much ado has been made by critics concerning the suggestion that this house should be reduced to the 900 square feet of the Dudley report. Sir Giles Gilbert Scott, one of the signatories of the original letter, replied on the 29th December in a letter to "The Times," that the Royal Academicians' letter was misunderstood both by Mr. Robert Lutyens and Sir Charles Reilly, "who both point out that a plan cannot be reduced proportionately in all its parts, which is, of course, obvious." What is obvious, however, is that a Council house cover-

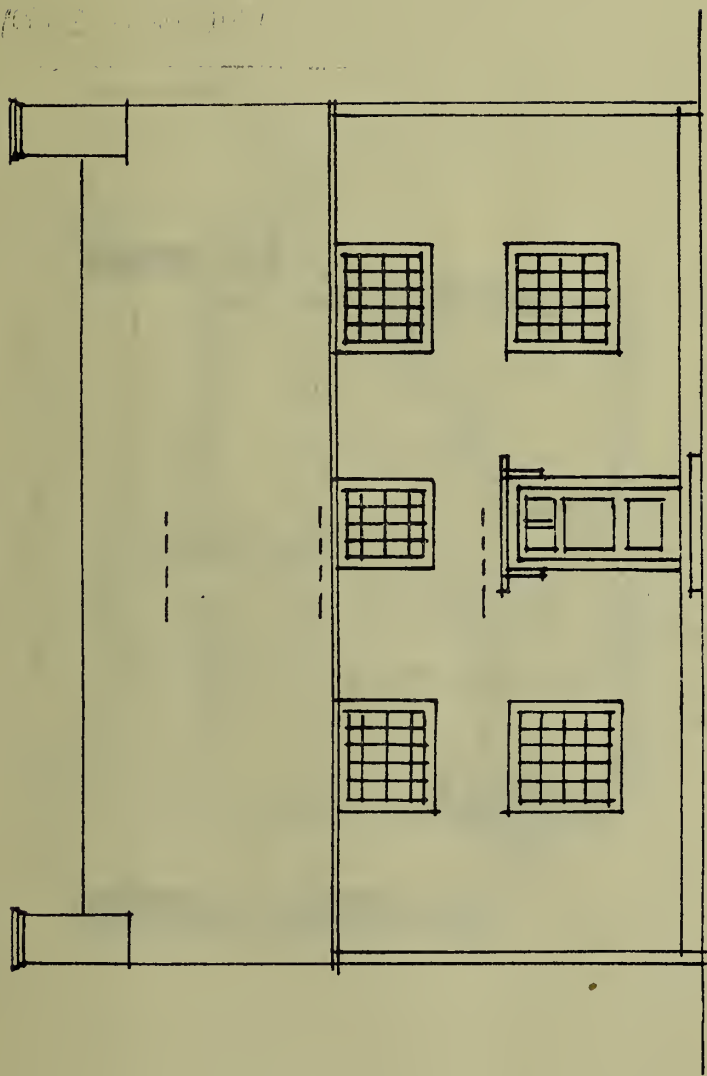


FIG 6.—18th Century Model House — Front Elevation.

(Figures 6 to 9 reproduced by permission of The Royal Academy Planning Committee).

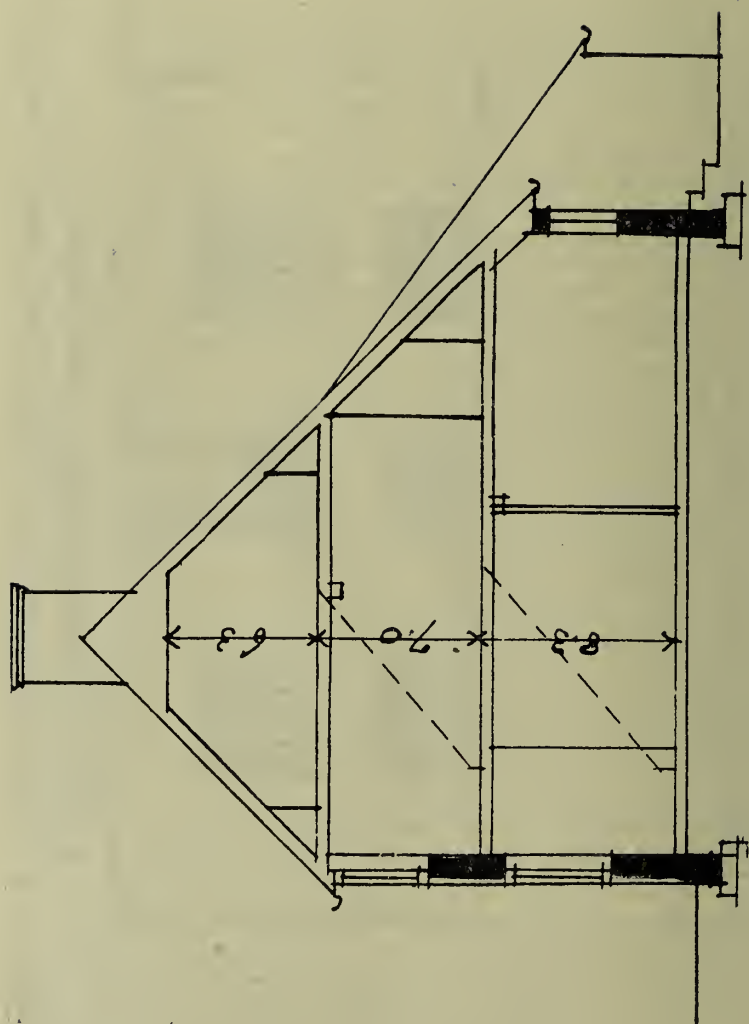


FIG 7.—Section. (Original Walls Black - Additions in Outline).

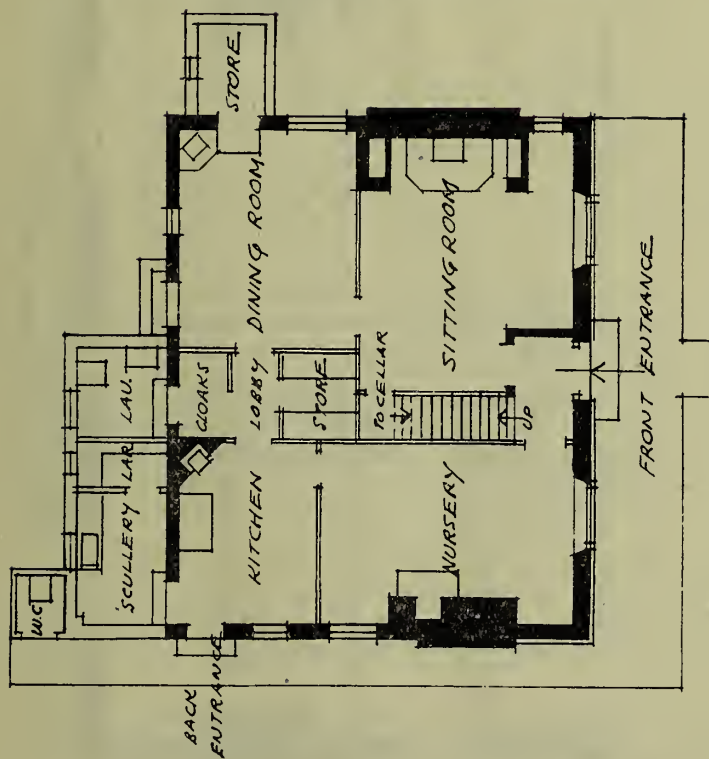


FIG 8.—Ground Floor Plan.

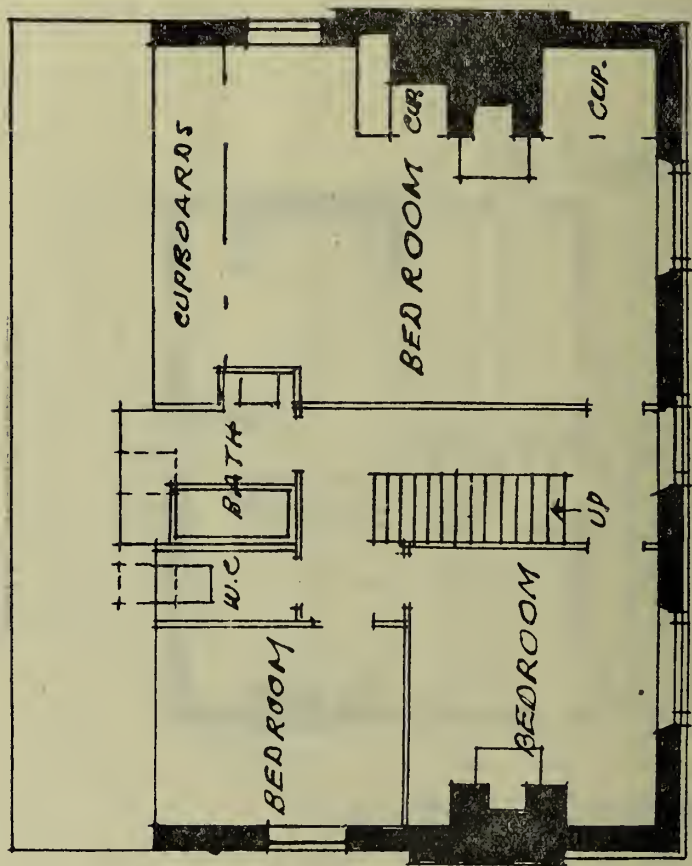


FIG 9.—First Floor Plan.

ing 900 square feet is by no means sufficient in area for those who wish to rear a family in decent circumstances; nurseries are non-existent and kitchens are cut down in size until they are mere caricatures. Moreover, the vagaries of the English climate scarcely require that Council houses should be fitted with electric refrigerators.

WATER SUPPLY.

The water supply as obtained from the Ilkeston and Heanor Water Board is both abundant in quantity and of unexceptional quality. The two service reservoirs are at Codnor Park and are known as the Codnor High Level and Codnor Low Level Reservoirs. In addition, there are four service water towers (Tag Hill Tanks).

The annual consumption for domestic and trade purposes has, for the last 10 years, been rising. (See Table 13). The total consumption has risen from 29.87 to 40.11 gallons per head per day. For domestic consumption it has risen from 22.26 in 1933/4, to 31.30 gallons per head per day in 1943/4. It is estimated that water leakages are responsible for 10 per cent. of the domestic consumption; this estimate is probably on the low side.

A rough computation shows that during 1943, 247 $\frac{1}{2}$ in. services, 45 $\frac{3}{4}$ in. services, 15 1in. services, 87 3in. mains, 12 5in. mains, 14 12in. mains and 4 15in. mains were repaired—a total of 424. Owing to depletion of staff and the fact that those remaining are mostly elderly men, no testing for night water flow can be done, but on one occasion it was estimated to total 18,000 gallons an hour. Clearly, there are numerous leaks and fractures which remain undetected. At one place in 1944, where water was metered, in six weeks the meter registered 652,000 gallons—a very large proportion of which was waste.

Very heavy damage is done to the water services through subsidence caused by coal mining; not only are mains and services broken with consequent wastage on a large scale, but very frequently the water becomes polluted and rendered unsatisfactory for human and domestic use.

Of 72 samples examined bacteriologically no less than 16, or 22 per cent. were deemed to be unsatisfactory. Samples are taken twice a month for bacteriological examination and approximately once a month for chemical analysis. (The results are recorded in Tables 14 and 15). After a fracture has been repaired, the section is flushed out and well dosed with chloros solution.

The number of fractures or damaged joints which exist undetected must be very large; as fast as one is repaired another one springs up, and, for a period of anything up to three months, the same spot may go again and again. The labour involved is heartbreaking.

Fig. 10 shows the degree of subsidence which may occur. The photo was taken in November, 1944, and depicts the road approaching Langley Mill. At the point where the trolley bus stands the road level has sunk in a very short period a matter of 2 ft. 7½ ins., with the result that the Bailey Brook, which flows under the road—the bridge can be seen in the background—when it rises above a certain level backs up the storm water overflows, and floods the road to an appreciable depth. In addition, drains, sewers and water mains have gone the same way, and have had to be repaired again and again.

TABLE 13.

WATER DEPARTMENT.

ANNUAL CONSUMPTION FOR DOMESTIC AND TRADE PURPOSES.

Year.	Total Consumption.		Domestic Consumption.		Trade Consumption.	
	Thous- ands.	Per head per day.	Thous- ands.	Per head per day.	Thous- ands.	Per head per day.
1933/34	250,801	29.87	186,894	22.26	63,907	7.61
1934/35	246,565	29.36	187,584	22.34	58,981	7.02
1935/36	255,817	30.47	195,690	23.31	60,127	7.16
1936/37	274,905	32.75	198,675	23.67	76,230	9.08
1937/38	293,498	34.96	213,579	25.44	79,919	9.52
1938/39	290,969	34.65	212,137	25.26	78,832	9.39
1939/40	298,361	35.54	213,266	25.40	85,095	10.14
1940/41	310,010	36.92	233,516	26.62	86,494	10.30
1941/42	295,501	35.19	231,930	27.62	63,571	7.57
1942/43	309,985	36.92	237,062	28.23	72,923	8.69
*1943/44	336,782	40.11	262,795	31.30	73,987	8.81

* Heavy damage from Mining Subsidence.

The computations are approximate to the second decimal.

1940 - 1941 Peak Year for Industrial Use of Water.

Reduction of water consumption for industrial purposes 1941/42, with increased use for domestic purposes, denotes increase for waste and fire prevention duties. It is estimated that waste (water leak-ages) is responsible for approximately 10 per cent. of domestic consumption. (Figures supplied by courtesy of the Surveyor, Mr. R. Archer).

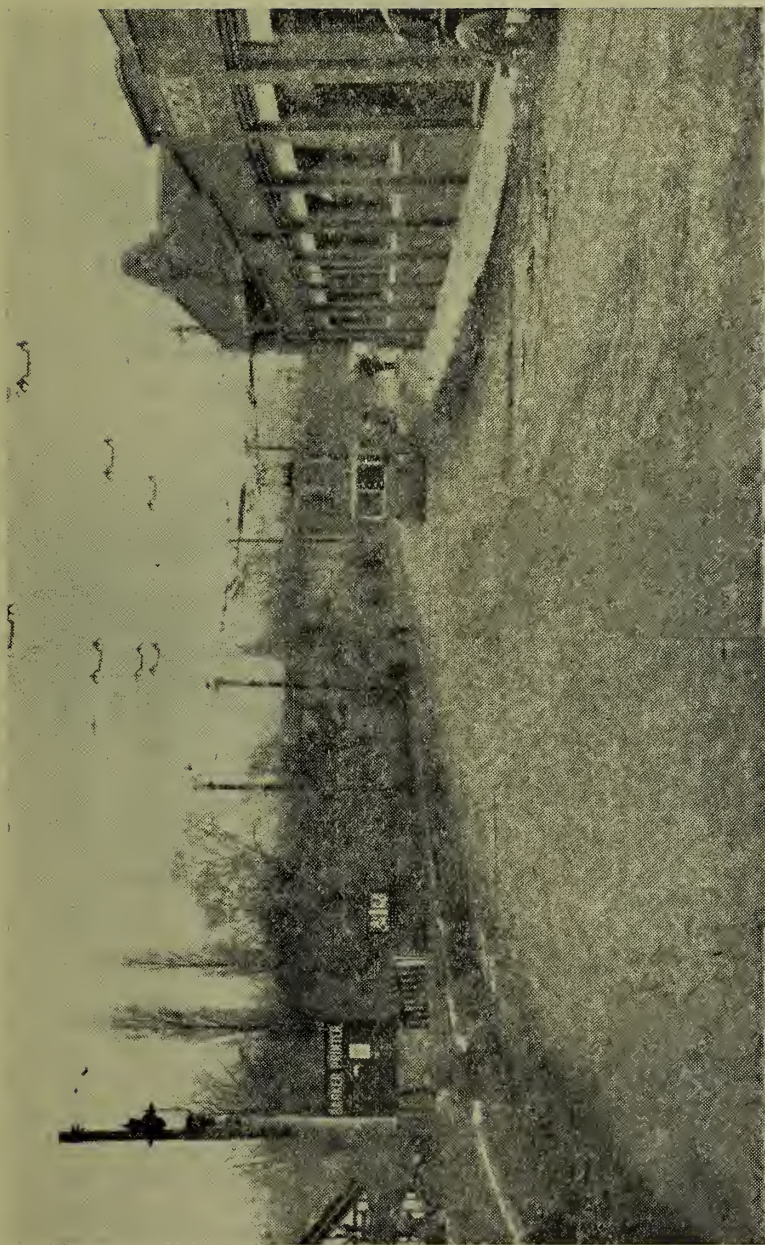


FIG 10.—Road Subsidence at Langley Mill, due to Coal Mining:
2 ft. 7½ in. drop where the trolley bus stands.

TABLE 14.

**BACTERIOLOGICAL EXAMINATION REPORTS ON
WATER SAMPLES.**

		Coli-aerogenes count per 100 mls. at 37°C	B. coli.
No.	Source of Supply.	in 48 hours.	
Jan. 9, 1943.			
1.	Codnor High Level	0	abs. in 200 mls.
Jan. 9, 1943.			
2.	Codnor High Level	0	abs. in 200 mls.
Jan. 9, 1943.			
3.	Codnor Low Level	0	abs. in 200 mls.
4.	Tag Hill Tanks	0	abs. in 200 mls.
Feb. 6, 1943.			
5.	Codnor High Level	25	Pres. in 10 mls.
6.	Codnor High Level	1	(Pres. in 100 mls. (abs. in 50 mls.
7.	Codnor Low Level	0	abs. in 100 mls.
8.	Tag Hill Tanks	0	abs. in 100 mls.
9.	Codnor High Level	25	Pres. in 10 mls.
10.	Codnor High Level	0	abs. in 200 mls.
11.	Codnor High Level	0	abs. in 200 mls.
Feb. 17, 1943.			
12.	Codnor High Level	0	abs. in 100 mls.
13.	Codnor High Level	0	abs. in 100 mls.
Mar. 8, 1943.			
14.	Codnor High Level	0	abs. in 100 mls.
15.	Codnor High Level	0	Pres. in 10 mls.
16.	Codnor High Level	25	Pres. in 10 mls.
17.	Codnor Low Level	0	abs. in 100 mls.
Mar. 16, 1943.			
18.	Codnor High Level	0	abs. in 100 mls.
19.	Codnor High Level	0	abs. in 100 mls.
20.	Codnor High Level	0	abs. in 100 mls.
21.	Codnor High Level	0	abs. in 100 mls.
April 7, 1943.			
22.	Codnor Low Level	0	abs. in 200 mls.
23.	Codnor High Level	0	abs. in 200 mls.
24.	Codnor High Level	0	abs. in 200 mls.
25.	Tag Hill Tanks	0	abs. in 200 mls.

		Coli-aerogenes count per 100 mls. at 37°C	B. coli.
No.	Source of Supply.	in 48 hours.	
May 12, 1943.			
26.	Codnor High Level	0	abs. in 200 mls.
27.	Codnor High Level	0	abs. in 200 mls.
28.	Codnor Low Level	1	abs. in 100 mls.
29.	Tag Hill Tanks	0	abs. in 200 mls.
June 7, 1943.			
30.	Codnor Low Level	0	abs. in 200 mls.
31.	Codnor High Level	0	abs. in 200 mls.
32.	Codnor High Level	0	abs. in 200 mls.
33.	Codnor High Level	0	abs. in 200 mls.
July 21, 1943.			
34.	Codnor High Level	0	abs. in 200 mls.
35.	Codnor High Level	5	Pres. in 25 mls.
36.	Codnor High Level	0	abs. in 200 mls.
37.	Codnor High Level	0	abs. in 200 mls.
38.	Codnor Low Level	5	Pres. in 25 mls.
39.	Codnor Low Level	5	Pres. in 25 mls.
40.	Codnor Low Level	0	abs. in 200 mls.
41.	Codnor Low Level	3	Pres. in 50 mls.
Sept. 20, 1943.			
42.	Codnor Low Level	90	Pres. in 5 mls.
43.	Codnor High Level	0	abs. in 100 mls.
44.	Codnor High Level	5	Pres. in 50 mls.
45.	Codnor High Level	3	Pres. in 50 mls.
Oct. 4, 1943.			
46.	Codnor High Level	0	abs. in 100 mls.
47.	Codnor High Level	0	abs. in 100 mls.
48.	Codnor High Level	25	Pres. in 10 mls.
49.	Codnor Low Level	25	Pres. in 10 mls.
Oct. 27, 1943.			
50.	Codnor High Level	0	abs. in 100 mls.
51.	Codnor Low Level	0	abs. in 100 mls.
52.	Codnor High Level	0	abs. in 100 mls.
53.	Codnor High Level	0	abs. in 100 mls.
Dec. 20, 1943.			
54.	Codnor High Level	0	abs. in 100 mls.
55.	Codnor High Level	0	abs. in 100 mls.
56.	Codnor High Level	0	abs. in 100 mls.
57.	Codnor Low Level	0	abs. in 100 mls.

		Per mil.		Per 100 mls.	
		No. of colonies in agar		Presumptive Coliform	Differential Coliform
		48 hrs. 37°C.	72 hrs. 20°C.	count.	test.
June 3, 1943.					
58.	Codnor Low Level	1	10	8	8
59.	Codnor High Level	3	7	0	0
60.	Codnor High Level	9	3000 approx.	180 plus.	
(Note: Organisms were of the intermediate-aerogenes-cloacae type).					
June 10, 1943.					
61.	Codnor High Level	1	1	0	0
62.	Codnor High Level	2	44	0	0
63.	Codnor High Level	0	4	0	0
64.	Codnor High Level	0	0	0	0
June 16, 1943.					
65.	Codnor High Level	5	4	0	0
June 17, 1943.					
66.	Codnor Low Level	0	48	0	0
June 18, 1943.					
67.	Codnor High Level	1	9	0	0
68.	Codnor Low Level	8	9	0	0
69.	Codnor Low Level	3	3	0	0
June 24, 1943.					
70.	Codnor High Level	7	53	25	0
(Note: Organisms were of the intermediate-aerogenes-cloacae type).					
71.	Codnor Low Level	1	110	0	0
72.	Codnor High Level	1	4	0	0

Samples Nod. 1 - 57 were examined by Mr. W. W. Taylor, Public Analyst, and Samples Nod. 58 - 72 were examined by Dr. J. Iredale, Derbyshire County Council Bacteriologist.

TABLE 15.

ANALYSIS OF SAMPLES OF HEANOR WATER SUPPLY (1943).

Constituent.

	Jan. 9.	Feb. 6.	Mar. 11.	Apr. 10.	May 15.	June 10.	Sep. 27.	Oct. 27.
Parts per 100,000.								
Total Solids dried at 180°C.	20.00	17.00	18.05	18.00	19.00	19.00	19.00	18.00
Suspended Matter	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Trace
Chlorides as chlorine	2.13	2.13	2.12	1.78	2.13	2.13	2.13	2.13
Oxydised N. as nitrate	0.20	0.16	Nil	Nil	Nil	Nil	Nil	Nil
Oxydised N. as nitrite	Nil	Nil	Nil	Trace	Trace	Nil	Nil	Nil
Free Ammonia	0.0008	0.0004	0.0028	0.0004	0.0004	0.0004	0.0008	0.0004
Albuminoid Ammonia	0.0008	0.0004	0.0012	0.0004	0.0004	0.0004	0.0004	0.0004
Temporary Hardness	4.00	5.00	6.50	6.00	6.50	8.00	7.00	6.50
Permanent Hardness	8.00	7.00	7.50	6.50	6.00	6.00	6.00	6.00
Total Hardness	12.00	12.00	14.00	12.50	12.50	14.00	13.00	12.50
O ₂ absorbed in 4 hrs. at 80°F. ...	0.00	0.008	0.016	0.00	0.00	0.00	0.00	0.00
pH value	8.90	8.60	8.10	7.70	8.50	7.70	8.50	8.90
Appearance	C & B	C & B	C & B	C & B	C & B	C & B	C & B	C & B
Odour	none	none	none	none	none	none	none	none
Taste and Colour	normal	normal	normal	normal	normal	normal	normal	normal
Heavy Metals	abs.	abs.	abs.	abs.	abs.	abs.	abs.	abs.
Free Chlorine	abs.	—	abs.	abs.	—	abs.	—	abs.

C & B = Clear and Bright.

abs. = Absent.

Analyses by Mr. W. W. Taylor, Public Analyst, 1, Regent Street, Nottingham, who reported that all samples were of satisfactory chemical quality for human consumption and domestic use.

In closing this report I beg to extend my thanks to the members of my Department and the Health Visitors for the help which they have given me during this very difficult year.

I have the honour to be, gentlemen,

• Your obedient Servant,

PHILIP TURTON,

Medical Officer of Health.

REPORT OF THE SANITARY INSPECTOR FOR THE HEANOR URBAN DISTRICT FOR THE YEAR 1943.

To the Chairman and Members of the
Heanor Urban District Council.
Gentlemen,

I have the honour to present to you my Annual Report for the year 1943.

During the year under review the activities of the Health Department have been maintained and progress has been made in certain directions.

Local Government appears to be undergoing a creeping barrage of big guns these days, and obviously some of the usual functions of local authorities are in process of being transferred.

On every hand we now hear and read of post-war problems, and nearly every discussion or paper refers to some improvement to be made. We should not, however, lose sight of the individual in the efforts to improve society, and we must place some obligation upon the individual to help both himself and his fellow-beings.

The war has slowed down housing, and the environment of bad housing conditions and overcrowding lead—in some cases—to acquiescence despite the healing aid of Health Departments and the discretion of the dutiful sanitarian. The first demand after the war will be for more houses, as everyone is agreed that he wants (1) work in the right place with security; (2) a place to live in with pleasant surroundings, room for sport, facilities for recreation and study; (3) a reasonable chance for his children; (4) ample food of the right kind; (5) opportunity to travel about the country without discomfort; and (6) a full, varied, and coherent social life, incidentally, domestic science classes in the extended years of education would do much to promote desirable tenants.

Rodent Infestation received considerable attention during the year, and some useful work has been accomplished; the liability of occupiers of premises has to be emphasised in so far as rodent destruction is concerned.

The fullest possible co-operation has also been given under the National Milk Testing and Advisory Scheme in association with the War Agricultural Executive Committee and the Midland Agricultural College.

A Cleansing Station for the treatment of cases of Scabies has been established and is proving of considerable use.

During the year a scheme for the collection of Kitchen Waste was brought into operation, suitable bins were placed throughout the area, and although weekly collections are also made by persons licensed by the Ministry of Agriculture and Fisheries for the pur-

pose, the scheme has been well supported by the public, despite the misplaced exuberance of a few individuals who occasionally interfered with the communal bins.

The supervision and training of the Civil Defence Rescue Service has also been taken over during the year.

VISITS AND INSPECTIONS MADE, 1943.

During the year 7,148 visits and inspections were made as follows:—

Appointments with Owners, Agents and Builders	...	...	925
Premises Inspected on Complaint	...	...	232
Premises Re-visited following Complaints	...	...	117
Caravans, Tents and Similar Structures	...	...	15
Cinemas and Theatres	...	...	21
Drainage Inspections	...	...	110
Smoke, Colour and Water Tests to Drains	...	...	16
Factories	...	...	16
Workplaces	...	...	10
Outworkers' Premises	...	...	14
Offensive Trades	...	...	5
Infectious Disease and Disinfection	...	...	364
Piggeries	...	...	35
Rats and Mice Destruction Act	...	...	71
Refuse Receptacles and Conveniences	...	...	494
Refuse Tips	...	...	525
Re-visits to Property Under Notice	...	...	236
Schools, Churches and Chapels	...	...	21
Shelters, T.B.	...	...	4
Smoke Observations and Visits	...	...	38
Miscellaneous Visits and Salvage	...	...	2370
Housing Enquiries re Application for Council Houses	...	...	77
Houses Inspected re Overcrowding	...	...	22
Houses Inspected re Housing Defects:—			
Public Health Acts, 190; Housing Acts, 49	...	...	239
Number of Inspections made for the purpose	...	...	254
Meat and Other Foods Inspections:—			
Slaughter-houses	...	...	88
Butchers' Shops	...	...	301
Food Stalls and Vehicles	...	...	218
Bakehouses	...	...	18
Other Food Preparing Premises	...	...	139
Fish Frying Premises	...	...	39
Fish Shops	...	...	5
Fruit Shops	...	...	2
Cowsheds, Milk Purveyors' Premises and Vehicles	...	...	307
Complaints:—			
No. of Complaints Received	...	...	152
No. Referred to Other Departments	...	...	11

Summary of Complaints:—

Accumulations	...	...	...	...	...	1
Defective Closet Accommodation	...	...	...	...	...	10
Dirty Houses	...	...	...	...	...	3
Housing Defects	...	...	...	...	...	63
Overcrowding	...	...	...	...	...	2
Keeping of Animals	...	...	...	...	...	3
Miscellaneous Nuisances	...	...	...	...	...	13
Obstructed Drains or Sewers	...	...	...	...	...	35
Prevalence of Rats	...	...	...	...	...	4
Smoke Nuisances	...	...	...	...	...	6
Verminous Houses	...	...	...	...	...	12
						<hr/> 152 <hr/>

Notices Issued:—

No. of Informal Notices Served	564
No. of Statutory Notices Served	...	...	...	...	Nil
No. of Nuisances Abated	...	...	...	...	840
No. of Notices to Day Schools, Sunday Schools and Librarians re Infectious Disease	...	...	...	...	250

**SANITARY IMPROVEMENTS MADE AND DEFECTS
REMEDIED DURING THE YEAR, UNDER THE PUBLIC
HEALTH ACTS AND HOUSING ACTS.**

INTERIOR OF HOUSES:—

Houses cleansed	...	...	...	...	...	40
Floors re-laid or repaired	...	...	...	...	...	47
Windows repaired or provided with sashcords	...	...	...	...	...	40
Walls repaired	...	...	...	...	...	34
Ceilings repaired	...	...	...	...	...	35
Staircases repaired	...	...	...	...	...	18
Fireplaces or Ovens repaired	...	...	...	...	...	39
Doors repaired	...	...	...	...	...	31
Insufficient lighting remedied	...	...	...	...	...	5
Insufficient ventilation remedied	...	...	...	...	...	9
Pantries ventilated or repaired	...	...	...	...	...	12
Water removed from cellars	...	...	...	...	...	2
Washing coppers provided and repaired	...	...	...	...	...	22

Baths, Lavatory Basins, etc.:—

Baths provided	2
Wash-hand basins provided	...	...	...	...	...	2
New sinks provided	...	...	...	...	...	14
Sink waste-pipes trapped or repaired	...	...	...	...	...	28
Bath waste-pipes trapped or repaired	...	...	...	...	...	5
Wash-hand basin waste pipes trapped	5

Water Supply:—

Internal supply of water provided (Taps fixed over sinks)	3
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Overcrowding:—

Overcrowding remedied	4
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EXTERIOR OF HOUSES:—

Roofs repaired or renewed	80
Walls pointed or repaired	41
Chimney stacks repaired	34
Eaves and downspouts provided or repaired	64
Dampness remedied	19

Drainage:—

Downspouts disconnected from drains	11
Drains opened and cleansed	90
Drains re-laid or repaired	32
Additional drains provided	20
New Inspection Chambers provided	17
Inspection Chambers repaired	11
Interceptors provided on main drains	3
Drains ventilated	3
Soil pipes repaired or altered	3
New gully traps provided	35
Insanitary gully traps abolished	3
Underground rainwater cisterns abolished	1
Drains tested with smoke, water or colour fluid	16
Water removed from cellars	2
Drains disconnected from watercourse	1

Yards and Outbuildings:—

Wash-houses built, repaired or limewashed	9
Coalhouses built or repaired	10
Yards paved or repaired	22
Yard surfaces cleansed	10

Privies, Pail Closets, Cesspools and W.C.'s:—

Privies converted into water closets	Nil
Pail closets converted into water closets	2
Trough closets converted into water closets	8
Pail closet receptacles renewed	2
New W.C. buildings erected	2
Water closets accommodation repaired	17
Water closets provided with new pedestals	21
Defective water service repaired	122
Defective flushing apparatus repaired or renewed	48
Additional W.C.'s provided	14
Sanitary conveniences limewashed	14
Insufficient sanitary accommodation remedied	8
W.C.'s cleansed	7
Cesspools emptied	4

Dustbins:—

Dustbins provided (replacements)	352
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Miscellaneous Nuisances:—

Nuisances from keeping swine	2
Nuisances from keeping other animals	3
Accommodation for animals limewashed	1
Accumulation of manure removed	4
Disused buildings demolished	5

Smoke Abatement:—

Smoke nuisances abated	5
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SUMMARY OF REGISTERED PREMISES.**Slaughter-houses—Licensed 19. Registered 3**

(Not in use)	22
Offensive Trade Premises	3
Workplaces	27
Outworkers' Premises	14
Factories	100
Bakehouses	14
Fish Frying Premises	28
Other Food Preparing Premises	29
Farms or other Premises used as Dairies	36
Cowsheds	76
Milk Purveyors—Retail 27, Wholesale 29	56
Milk Purveyors who reside outside but retail within this area	15

HOUSING.

The cessation of building has increased our future housing responsibilities. Many families have had to find accommodation in parents' or relations' houses, whilst a fair number of houses are approaching the unfit stage, such houses having been maintained in as good a state as advancing age has permitted.

There are 750 applicants on the register desiring housing accommodation, the following groups being predominant (1) overcrowded families, (2) newly married couples, (3) families occupying houses which are now beyond repair, (4) families who for health reasons desire other accommodation, and (5) aged couples who desire a small bungalows, and which, in most instances, would release larger houses for the use of families.

The size of houses and dimensions of rooms will be of importance, and it should be possible to blend the two ideals—architectural effect with internal planning and arrangement.

In the early years the family need is two bedrooms; later three or four may be required; as children may leave home the number of bedrooms in use is reduced; and finally, as an old couple, the parents need a bungalow. It has been seen that during their married life a couple might need up to four different sized houses, incidentally one

may foresee an annual increase in the percentage of elderly people in the future.

The immediate need for houses after the war may create a tendency to advocate the erection of temporary buildings, thereby utilising valuable building materials and labour without producing a permanent contribution to the pool of good houses.

One factor emerging from housing inspections is the ever increasing demand for bungalows for aged couples who are at present occupying houses large enough for families. Old age is occasionally crowded with repercussions of long years of strain, but there can be no finer sight than that of the contented old couple sitting at the fire-side in a small home of their own enjoying the evening of their lives. What is the use of quoting authoritative medical opinion or talking about vitamins, or suggesting the ultra-violet rays to old folks who appreciate more the poultice, the turpentine and liniment, the warm nightwear and the flannel petticoat? When we reach the stage of sans teeth, sans everything, we too shall think chiefly of creature comforts, not so much the care of the flesh, but its protection. Allowance can be made for these aged, whilst the whole air of the house can breathe the spirit of understanding without the slightest hint of tolerance.

COMMON LODGING HOUSES.

There are no Common Lodging Houses in the area.

HOUSING STATISTICS.

No. of New Houses erected during 1943:—

1 By the Local Authority	...	...	...	...	Nil
2 By other bodies or persons	...	...	...	...	Nil

1 Inspection of Dwelling-houses during the year:—

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	...	...	...	...	...	239
(b) Number of inspections made for the purpose	...	...	...	...	...	250
(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidation Regulations, 1925 and 1932	...	...	...	...	...	2
(b) Number of inspections made for the purpose	...	...	...	...	...	4
(3) Number of dwelling-houses found to be in a state so dangerous or injurious as to be unfit for human habitation	...	...	...	...	...	2
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	...	...	...	...	...	53

2	Remedy of defects during the year without service of Formal Notices:—	
	Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers	53
3	Proceedings under Sections 11 and 13 of the Housing Act, 1936:—	
(1)	Number of dwelling-houses in respect of which demolition orders were made	Nil
(2)	Number of dwelling-houses demolished in pursuance of Demolition Orders	4
(3)	Number of houses demolished in anticipation of formal procedure under the Housing Act, 1936	Nil

OUTWORKERS.

There were fourteen premises in use for this purpose at the end of the year.

Three lists containing names and addresses of 16 Outworkers were received during the year, and particulars relating to one of these employed outside this area were forwarded to the Local Authority concerned.

The Home Work carried on was as follows:—

Nature of Work.				No. of Outworkers:	
				Males.	Females.
Clothing	...	...	2	—	2
Hosiery	...	...	12	—	12

Fourteen visits of inspection were made, the premises were in a satisfactory condition, and no case of infectious disease occurred upon these premises during the year.

INFECTIOUS DISEASE AND DISINFECTION.

The following work has been carried out during the year:—

No. of visits to infected houses	...	...	...	...	168
No. of rooms disinfected (Houses and Schools)	...	...	...	...	196
No. of Notices to Day Schools	...	...	...	...	151
No. of Notices to Sunday Schools	...	...	...	...	52
No. of Notices to Librarians	...	...	...	...	47
No. of Library Books disinfected	...	...	...	...	50
No. of Library Books destroyed	...	...	...	...	Nil
No. of lots of Bedding destroyed upon request	...	...	...	...	18
No. of rooms disinfected (Scabies)	...	...	...	...	88

DISINFESTATION.

No. of Houses infested (Bugs)	...	...	...	...	18
(a) Council Houses	...	...	...	...	6
(b) Other Houses	...	...	...	...	12
No. of Houses disinfested	...	...	...	...	18

SCABIES.—A temporary Cleansing Station is now functioning (1944) and no difficulty is being experienced in the treatment of cases. There appears to be many cases treated at home, however, and a complete picture of the general incidence of this type of infestation locally is at the moment not available. 95 cases were dealt with during the year, and 48 disinfections were carried out.

LICE AND NITS.—To eradicate this pest it is not always desirable to rely upon powers of compulsion, although this is essential in some cases. Some families resent being compelled to go to a cleansing station, whilst even the most verminous tramp is inclined to resent the accusation of being lousy. Co-operation by the affected persons and those who apply remedial measures and have a considerable insight into the conditions generally, meet with the desired success. 6 cases were dealt with and 6 disinfections were carried out.

ATMOSPHERIC POLLUTION AND SMOKE ABATEMENT.

Since the passing of the Public Health (Smoke Abatement) Act of 1926, the provisions of which are now incorporated in the Public Health Act, 1936, there has been a gradual improvement in existing industrial fuel burning appliances; especially in the Langley Mill and Heanor Wards. The same, however, cannot be said of the Loscoe Ward, where consideration of the installation of new plant capable of reasonably consuming its own smoke appears desirable.

As regards domestic premises, it will be agreed that in the case of new house construction of the magnitude required after the war, steps should be taken to ensure that the question of smokelessness should receive due consideration. To abolish domestic smoke, the manufacture of a satisfactory improved grate which will burn raw coal more completely, and also burn smokeless fuel, is necessary. Research in this direction has not yet reached finality, although quite recent advances in design have led to the production of open grates which burn coal with greater efficiency than any previous type of grate and produce considerably less smoke when bituminous coal is used.

All are willing to put up with drabness in wartime, but many are longing for cleanliness, colour and freshness in the post-war world, where new buildings will not become as begrimed as their sooty predecessors.

There is also the question of colliery spoil heaps; having regard to the fact that in recent years these heaps appear to be increasing in height, and smoke and fumes arising from these affect the well-being of adjoining residents, post-war schemes are necessary for the control of such heaps, especially with regard to sites, heights and methods of tipping. The existing method of depositing colliery residue in some instances calls for improvement throughout the country.

This Council is affiliated to the National Smoke Abatement Society, the two representatives being Councillor J. W. Lilley and the Sanitary Inspector.

REGISTER OF RAINFALL IN 1943.

Summary of observations taken at Crosshill, Codnor, by Mr. A. F. Pine, at a station 394 feet above mean sea-level:—

			Inches.		Days of Rain.
January	...	...	3.94	on	21
February	...	...	.75	„	10
March	...	...	.77	„	9
April	...	...	.73	„	9
May	...	...	3.95	„	14
June	...	...	1.36	„	8
July	...	...	.87	„	8
August	...	...	2.23	„	16
September	...	...	1.79	„	12
October	...	...	2.30	„	16
November	...	...	2.31	„	17
December	...	...	1.04	„	11
			<hr/>		<hr/>
			22.04	„	151
			<hr/>		<hr/>

The rainfall was below the average for the standard period (1881-1915) by 5.66 inches. The small amount of precipitation for the three months, April, May and June, was a record for this station.

SANITARY ACCOMMODATION.

The number and type of sanitary conveniences in use in the area at the end of the year were as follows:—

	Heanor Ward.	Langley Mill Ward.	Langley & Marlpool Wards.	Loscoe, Codnor, etc., Wards.	Total.
Water Closets	2574	1462	1239	1774	7049
Pail Closets	3	1	5	44	53
Privy Middens	2	Nil	3	35	40
Dry Ashpits	3	1	Nil	2	6
Dustbins	2449	1335	1207	1687	6678

The number of dustbins include a number of bins which are used in connection with business premises for trade refuse purposes. The number of water closets include houses and other premises where more than one W.C. is installed. The remaining pails and privy middens are chiefly situated in unsewered parts of the area.

PUBLIC CLEANSING SERVICES.

REFUSE COLLECTION.—Each year of the war puts an additional strain on the resources of the vehicles and personnel, but despite the labour and equipment available these days, this service has functioned reasonably well and the refuse has been collected methodically. Being a mining area the refuse yield, especially in the winter months, is exceedingly high, when a large percentage of the class of fuel issued to miners finds its way into the dustbin and increases the work enormously. With the war it has been difficult not to jettison many of our preconceived ideas of efficiency, but with a number of conscientious employees the work has been carried through satisfactorily. The position as regards the replacement of dustbins has slightly improved, but the uneconomic light dustbin is not a good type for a mining district.

REFUSE DISPOSAL.—There are three controlled tips in the area, and in each case useless land is being reclaimed for agricultural purposes. Night-soil is disposed of at the sewage works. The tips have been kept in a satisfactory condition.

SALVAGING.—This service is combined with refuse collection, and reasonably good progress has been made. Certain firms and others bale and sell all waste paper produced upon their premises direct to merchants, and licensed hawkers, as in previous years, have been making house-to-house collections of rags, bones, etc., and paying the householders for such materials. Despite this competition, however, public interest has been stimulated and every effort made to increase salvage collections, as exhausted usefulness of an article at home these days is by no means synonymous with worthlessness to the manufacturer.

TABLE OF COSTS FOR THE YEAR ENDED 1943.

Item.	(1)	Partics. (2)	I. COLLECTION.				II. DISPOSAL.				TOTAL.			
			Including Depreciation or Loan Charges (3)	Excluding Depreciation or Loan Charges (4)	Day Night £ £	Day Night £ £	Including Depreciation or Loan Charges (5)	Excluding Depreciation or Loan Charges (6)	Including Depreciation or Loan Charges (7)	Excluding Depreciation or Loan Charges (8)	Day Night £ £	Day Night £ £	Day Night £ £	Day Night £ £
Revenue A/C.														
A. Gross Expenditure					5189 196	5089 196					6710 216	6565 216		
B. Gross Income					1080 —	1080 —	3 —	3 —	1083 —	1083 —				
C. Net Cost					4109 196	4009 196	1518 20	1473 20	5627 216	5482 216				

Refuse Removed:—11,772 Tons Dry Refuse, 219 Tons Night Soil = 11,991 Tons (Estimated Weight).

SALVAGE.

	Tons.		Weight.		Income.	
	Cwts.	Qrs.	Lbs.	£	s.	d.
Paper	93	2	0	0	585	7 0
Ferrous Metals	12	9	2	14	26	1 10
Crushed Tins	42	3	2	0	56	18 5
Nos-Ferrous Metals	14	18	3	12	15	10 6
Textiles	11	11	2	10	82	8 2
Bottles and Jars	7	0	0	0	24	17 0
Rubber	3	14	0	0	4	8 6
Bones	8	15	3	2	25	11 7
Kitchen Waste	148	8	2	0	222	12 9
Cullet	19	11	0	0	24	8 9
Miscellaneous Articles					3	3 2
Total	350	14	3	10	£1,071	7 8

PUBLIC CONVENIENCES.

There are four of these owned and maintained by the Council. One was renovated during the year. The receipts from automatic locks in 1943 was £67/8/3.

SANITARY CONDITIONS OF MUSIC HALLS, THEATRES, ETC.

The usual satisfactory condition of these premises has been maintained.

TENTS, VANS AND TEMPORARY STRUCTURES.

Fifteen visits were made to caravans during the year in connection with vans attending the Annual Wakes. These were found satisfactory and no case of infectious disease was met with. No licence is in operation authorising the use of any land as a site within the district.

RATS & MICE (DESTRUCTION) ACTS. INFESTATION ORDER, 1943.

During the year the usual periodical attention was given to land and buildings owned by the Council, and advice and assistance was given to various owners and occupiers of private properties where rats were reported to be present. The number of rats destroyed was 292; 187 of these by rat catchers and 105 by other means.

On the 30th June a Direction under the Infestation Order 1943 was received from the Ministry of Food to submit to the Minister a report with respect to the extent to which land within the jurisdiction of this Council was subject to infestation. A preliminary survey report, together with a map showing areas representing minor infestations and likely breeding grounds, were forwarded. Later, a brief survey was made of private premises along with a Ministry representative.

On the 9th November a further Direction was received to proceed with the remedying of all infestations by rats and mice on land within this area. The necessary pre-baiting material and poison were therefore obtained and the Council appointed an experienced part-time Rat Catcher to remedy all infestations on Council land, including Sewage Works, Refuse Tips, Allotments, Depots, Recreation Grounds, Cemeteries, Sewers, etc., and the part-time appointment of this rat catcher has been amply justified, the results during the current year (1944), when he was appointed, having been attended with much success.

Attention to private premises is being given during the present year (1944).

INSPECTION AND SUPERVISION OF FOOD.

Meat and other Foodstuffs surrendered and destroyed:—

							lbs.
Meat	...	...	...	...	...	...	310
Tinned Foods	...	...	...	...	...	...	721
Bacon	...	...	...	...	...	...	30
Butter	...	...	...	...	...	...	12
Eggs.	120	...	...	...	...	...	15
Fish	...	...	...	...	...	...	12
Cheese	...	...	...	...	...	...	9
Semolina	...	...	...	...	...	...	96
Oranges	...	...	...	...	...	...	46
Tomatoes	...	...	...	...	...	...	337
Other Foods	...	...	...	...	...	...	209
Pig.	Carcase and Organs (Pneumonia)	...	...	...	...	...	130
Total							1927 lbs.

The use of private slaughter-houses in this area is now discontinued, meat being received from a distributing centre in another area.

One hundred and ten pigs were slaughtered locally under licence during the year, and the arrangement with the local Food Office is that when application is made to slaughter a pig, authority is given subject to the premises being suitable and a licensed slaughterman being engaged to the satisfaction of the Sanitary Inspector. The applicant then obtains the necessary licence from the Food Office, and the slaughterman gives three hours' notice to the Health Department prior to slaughtering taking place; the humane killer is used in all cases. This co-operation by the local Food Office is very satisfactory.

The transport and handling of meat received attention, and shops, market stalls and food preparing premises were visited at frequent intervals and any infringements were remedied.

COWSHEDS AND DAIRIES.

There are 36 registered farms in the area, upon 16 of which Accredited Milk is produced. In addition, 3 persons keep a single cow for the provision of milk for their own use. There are 29 wholesale producers and 27 retailers in the area, and 15 retailers who reside outside but retail milk within this area, including two firms who retail Pasteurised Bottled Milk and are licensed for this purpose.

Three Supplementary Licences to retail Accredited Milk in this area by persons producing milk in other areas were issued during the year.

Frequent inspections were made to all farms and dairies, and certain improvements made wherever possible. 57 samples of milk

were obtained, and where unsatisfactory were followed up by repeat samples and advisory visits until satisfactory.

The ultimate ideal is clean milk produced from disease-free herds and protected from human contamination, and the number of Accredited producers is increasing.

FOOD AND DRUGS ACT 1938.

The County Analyst has kindly furnished particulars of samples taken in this district during the year. 139 samples were taken, 43 of these being milks. Of the milk samples one contained added water, and the vendor was cautioned. Three samples of Baking Powder were deficient in available carbon dioxide, and one sample of Tincture of Iodine was not of B.P. quality. The vendors were cautioned.

FOOD PREPARING PREMISES AND BAKEHOUSES.

These were inspected and certain minor improvements effected. One bakehouse was reconstructed and considerably improved.

OFFENSIVE TRADES.

There are three of these premises, and no complaints have arisen; each business is conducted on a small scale.

FACTORIES ACT 1937.

One notice in pursuance of Sec. 9, received from H.M. Inspector of Factories, in respect to a factory, was dealt with, and the matter indicated was remedied. At another factory a range of continuous trough closets was abolished and eight separate water closets were provided, together with suitable washing facilities.

HEALTH EDUCATION.

If Health Education is to be successful it must be introduced at a time when it can be moulded into habit and take part in the formation of character. The best period would therefore appear to be during school life. Health education for adults is a much heavier matter and one has to rely on the effect of propaganda for specific purposes, and like all forms of propaganda it should be judged by its effects. Radio, film, newspaper, poster and leaflet are the best allies, and whatever method is adopted it should persuade and not forbid, and on occasions wake the drowsing brain by pun and paradox; people are more ready to respond to witty thumps on the back, but not on the head.

The community is made up of individuals, and if we educate the ordinary person to think aright as regards health, the community as a whole will be all right, as uncleanness and unhealthy habits are generally restricted to a few incorrigible families who spoil the record.

Posters and leaflets provided by the Central Council for Health Education and other organisations have been made full use of during the year, and talks were given to various organisations when time permitted. There may be a few who disparage the scattering upon walls, clinics and other premises of slogans and posters, but there seems to be no reason why health education by this means should not be as successful as commercial advertising.

In concluding this report my thanks are expressed to the Council for their encouragement and support, to the Medical Officer for his very close interest in all spheres of the Department, to Mr. Bassford, Miss Annable and Mrs. Lloyd for loyal co-operation, to all colleagues, and finally, to the foreman and members of the cleansing service for the maintenance of a service which especially during the winter months involves work of a particularly arduous nature; workmen operating these services may have no lunch-hour concerts, music while you work, and other consolations, but the work is essential and an efficient standard has to be maintained.

I am, Gentlemen,

Your obedient Servant,

ANDREW A. WILSON.

